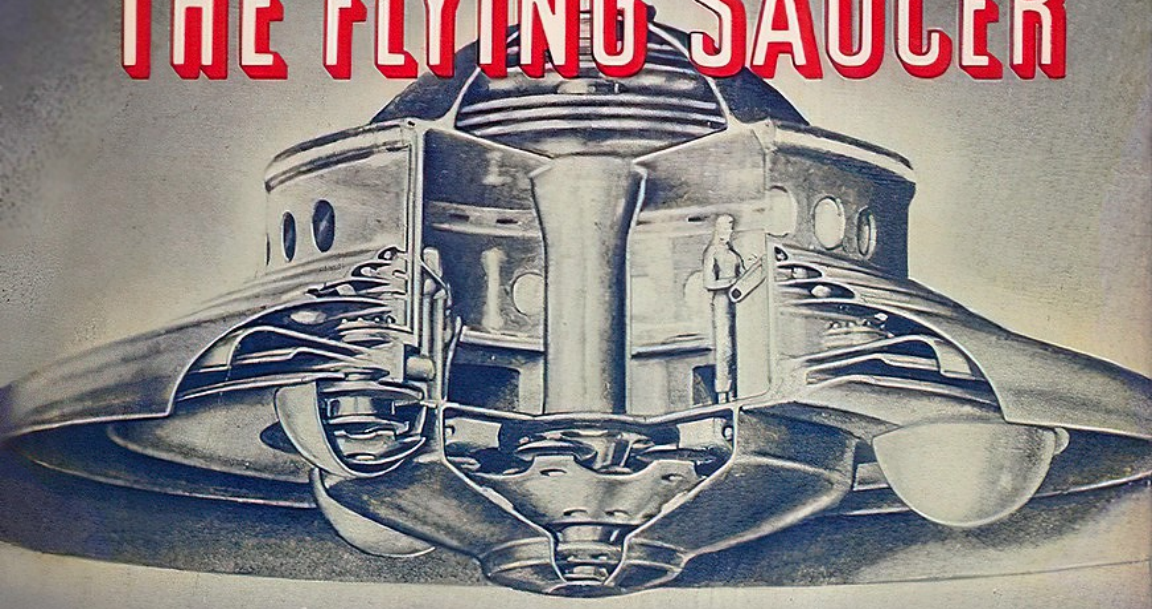
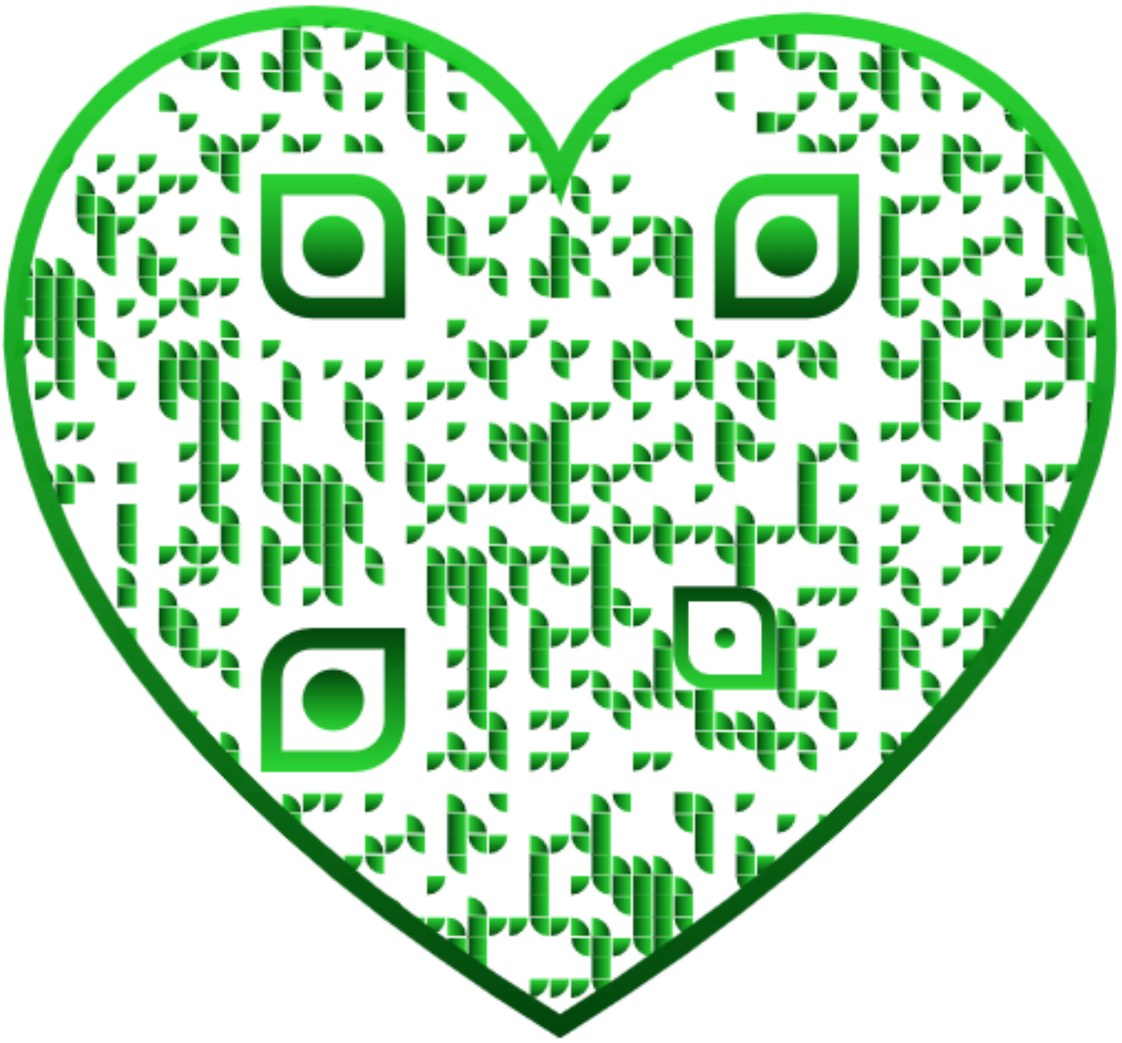
Space, Gravity & THE FLYING SAUCER



Introduction by Desmond Leslie

LEONARD G. CRAMP



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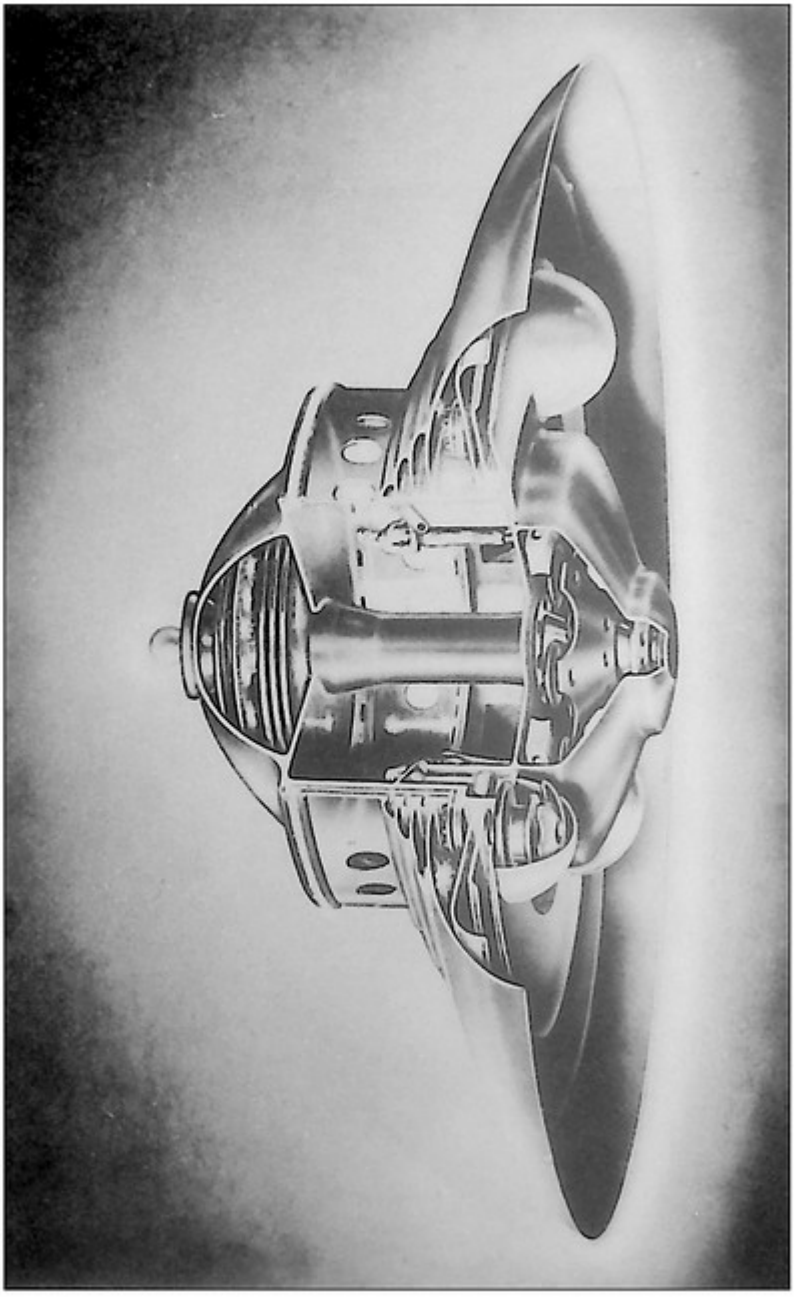
Space, Gravity and the Flying Saucer

By

Leonard G. Cramp

Published 1955



Author's impression of a sectional view of a scout ship

LEONARD G. CRAMP

M.S.I.A.

Member of the British Interplanetary Society

Space, Gravity and the Flying Saucer

Introduction by Desmond Leslie

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Dedication

I dedicate this book to my wife Irene who shared the work throughout, and had to decipher my writing, and to Gary and David, that they will seek truth, as I have tried

Acknowledgements

It is with grateful thanks that I wish to acknowledge all those whose encouragement has helped make this book possible; to Edward Rose, whose untiring cooperation and suggestions have helped me immeasurably; to all the members of the little band who have so willingly assisted me; and John Campbell for his endless patience through years of research towards a ‘common goal’.

I wish to thank Antony Avenel, who like the true philosopher-scientist he is, complied unhesitatingly when I asked for his co-operation. His continual offers of further assistance has been an inspiration to me.

I should also like to extend my grateful thanks to Messrs T. Werner Laurie Ltd, for their assistance in procuring information and photographs, not least the copyright of the ‘Coniston’ photograph reproduced as an analysis drawing in this book.

Finally, to Desmond Leslie for his introduction to the book and his kind co-operation.

LEONARD G. CRAMP

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Introduction

ON the morning of 15th February 1954, a thirteen-year-old boy, Stephen Darbishire, began to feel uncomfortable. A nagging persistent restlessness told him he must go up the hill behind his home at Coniston, Lancashire. He could not tell why; he merely knew he had to. And so with his eight-year-old cousin, Adrian Myer, he climbed the small steep hill, taking with him his little Kodak camera in the hope of getting a few good bird pictures, for bird watching is one of his favourite pastimes.

Soon the boys had reached the summit and Stephen set his camera (or thought he had done so) on 'Infinity' and pointed it towards the long gleaming strip of Lake Coniston, about two miles away on the floor of the valley, the lake on which the famous 'Bluebird' Speedboats set up world records. It was a cold February day, half sunny, half cloudy. The summit of Coniston Old Man (2,575 feet) which rose beyond the hill, was lost in cloud.

At eleven a.m. Adrian was looking towards the mountain; Stephen was looking away in the opposite direction. Suddenly, Adrian thumped him on the back and shouted: 'Look at that thing!'

Down from the direction of the sun a strange silvery round object was descending. It came to earth about a hundred yards away and disappeared behind a bit of rising ground. A few seconds later it came into view again. Suddenly, it tipped up on its side and shot up into the sky with a deep swishing sound but until then

it had been completely silent. In a few seconds it had disappeared in the clouds.

Just before it went down behind the rise, Stephen succeeded in obtaining a photo. As the object came into view again he took another. Unfortunately, he had not set his camera

properly so the picture was blurred, but enough appeared on the plate for us to make several very important observations which will be discussed later.

According to Stephen, the object had a silvery glassy appearance, ‘Like metal or plastic which light goes through but which you can’t see through’. (The word he was searching for was ‘translucent’). At first it was directly in the sun’s rays and very bright. But as it began to rise, clouds cut off the direct sunlight so the boys were able to see it more distinctly. ‘It was a solid metal-like thing, with a dome, portholes, and three bumps or landing domes underneath. In the centre the underneath was darker and pointed like a cone. At first three portholes were visible but then it turned slightly and we saw four. There was what looked like a hatch on top of the cabin dome’.

Very excited, the boys ran down the hill to Stephen’s home, Little Arrow Farm, where the tale was breathlessly relayed to Doctor S. Darbishire, Stephen’s father, who at first ‘frankly did not believe it’. However, being an intelligent and open-minded Doctor, he made his son sit down, write a statement, and draw what he had seen from memory.

It was then decided to take the film to Mr Pattison who has a photographic studio in Coniston village (about one-and-a-half miles away) to be developed, although at the time no one thought it very likely there would be anything on it. However, some time later, Mr Pattison rang up very excited with the news ‘There’s something on it and it looks like a flying saucer.’

Sure enough there is a definite saucer-shaped object on the negative which, although a bit blurred, is clear enough for the three balls or‘landing domes’ to be distinguished, also a suggestion of dark portholes, while the dark cone beneath is clearly visible.

Before announcing this, Doctor Darbishire cross-examined Stephen very thoroughly, also Adrian, as he was well aware

what trouble a hoax could lead to both for himself and his entire family. However, both boys stuck to their story and the Doctor said later: ‘I know Stephen pretty well and I realised he was not lying.’ Nor do I believe two boys of that age could possibly have faked such a negative. After a family council it was decided that, come what may, this event was too important to be suppressed, so Doctor Darbishire picked up the ’phone.

The first press reaction was from the *Daily Mail* who sent up an investigator. This investigator was perfectly satisfied, as have been all investigators, that the picture was genuine. The best the *Mail* could do to discredit it was a comment by their ‘scientific correspondent’ J. Stubbs Walker (who did not

personally go to Coniston to investigate), that under certain conditions ice crystals might produce the appearance of a solid image. It was not, however, explained how an ice-cloud could produce the exact image of a flying saucer complete with dome, portholes, and three-ball undercarriage and a loud swish. A little later Al Griffin of the *Lancashire Evening Post* devoted a whole page to a well-written and intelligent exposition of the occurrence, reproducing both Stephen's and Adamski's photographs for comparison.

I travelled up to Coniston on 23rd February and was the guest of the Darbishires for two and a half days. During that time I was able to assess them pretty thoroughly as an intelligent and responsible family who had long ago passed the stage of spiritual adolescence. I was taken up the mountain by Stephen and the whole drama was re-enacted, the exact positions established, and the camera closely examined. It soon became apparent that the saucer could not have been more than a hundred yards away because immediately beyond the hillock the ground dips slightly and then rises almost in a steady ascent to the summit of the Old Man. It was into this dip that the saucer briefly descended.

I tried to establish what mistake Stephen had made in the

setting of his camera, for Stephen was certain that he had correctly focused on 'Infinity' some time before the saucer came into view. It was suspected that he had

done one of two things—either he had not pulled out the bellows sufficiently, and thus produced an out-of-focus picture, or he had set his exposure on ‘Bulb’ instead of on ‘1/25’. The latter would have been very easy to do, for with this cheap type of camera a small movement of a single lever sets the shutter at ‘T’, ‘B’, ‘1/25’, ‘1/50’ in that order. The lever movement between ‘B’ and 1’/25’ is about one-eighth of an inch and even had he had the shutter properly set when preparing his photo across Lake Coniston, in all the excitement he could easily have moved it that small amount. To try to establish what had happened, I took several exposures with the same camera, in the same place, using all these different possibilities of shutter and bellows settings. Then the results were compared with Stephen’s original negative. The one which, in exposure and appearance, most resembles the original was the one taken on ‘Bulb’ at ‘Infinity’ with about a one-second exposure. Therefore, I think we may safely assume that his camera was correctly focused and his bellows were fully extended, but that he inadvertently snapped on ‘Bulb’ instead of on 1’/25’; a mistake very easily made with this type of cheap camera.

I thoroughly toured the district with Stephen, and explored the mountains both by car over difficult tracks, and on foot when the tracks gave out entirely. The whole area is riddled with old copper mines, deserted shafts and flooded tunnels. Maybe these copper deposits are relevant. At the moment it is impossible to say. But we note them here in case of future developments.

During the two days I remained with the Darbishires Stephen never once contradicted himself. Although given his head and encouraged to prattle to his heart's content, he made no remark or inadvertent slip suggestive of a hoax.

I was also present during Stephen's questioning by four pressmen, who did their subtle best to make him change or contradict some small detail; which he did not.

Stephen stated, and it was confirmed by his parents, that he had never read the book *Flying Saucers Have Landed*, or even an abridged account of Adamski's experience but he admitted that he had seen the photograph of the Adamski saucer as published in *Illustrated* on 30th September 1953. He said that although this saucer picture had shown a saucer with three portholes in a row, the one he had seen had four in a row. In his drawing he had only shown three, but as the saucer went away it turned slightly so that a fourth porthole came into view. His guess was that it was a different type of saucer.

But, in one of the *unpublished* Adamski photos (the original of the frontispiece which had to be trimmed on the right-hand side for reproduction) four portholes in a row are clearly shown.

He did not know this!

This, on top of the other evidence, fully convinced me that Stephen was not only telling the truth but also that he had seen the same saucer (or an identical model) as Adamski.

I have been asked to relate the above story by way of introduction to this exciting new book about flying saucers. In the past year there have been a spate of works on the subject, mainly preoccupied with long lists of sightings taken from sources as varied in time and space as the Annals of Ancient Rome to the secret files of the Pentagon. Though interesting and valuable as documentation or reference, mere catalogues of events are not going to advance the subject very much further. What is required, now, is a serious scientific study of all this data and, from it, the emergence of explanations in terms acceptable to the more intelligent physicist.

This, I believe, Mr Cramp has succeeded in doing. In

clear-cut terms he has presented us with new vistas of scientific exploration in which a little dogged research might reward us with the secrets of interplanetary travel. I seriously recommend this book to everyone interested in space flight, for I believe that if a fraction of the money now spent on clumsy rocket development were diverted to a laboratory equipped to investigate and develop—among other things— Mr Cramp's theory, we should find ourselves flying to the Moon much sooner than by following the costly and uncomfortable methods now contemplated.

DESMOND LESLIE

Foreword

THIS book is an attempt to introduce a theory of propulsion in space, other than by way of rocket, which has been suggested by the behaviour of the so-called flying saucer and supported by the author's own observations over a number of years. Though the approach may be new, the theory involves no hypothesis with which we are unaccustomed. Rather, the arguments raised could present for debate yet another facet of a very old and familiar phenomenon.

As mention has been made of the flying saucer it is thought advisable to produce some evidence of the existence of such a craft, but the book has not been overloaded with unnecessary details of sightings for these can be found in a number of other books on the subject, and to these the reader is referred. As a rule, only those sightings which have some direct bearing on the theory have been quoted.

The theory elaborated in these pages was originally conceived prior to the second world war, and certainly long before the term 'Flying Saucer' came into general use. Can it be wondered therefore that the author took more than a casual interest in the significance of the many sightings? Indeed, the more he sifted the available information, the greater became his conviction that such a craft actually existed, and that there was more than a little justification for his theory. The reports coming in from ordinary people all over the world provided evidence of a phenomenon that he had hitherto only dreamt of.

Rocket enthusiasts may naturally be reluctant to admit an entirely different conception of space travel, and may therefore adopt a sceptical attitude towards the interplanetary flying saucer hypothesis. However, it is hoped that this

book will indicate that the flying saucer reports do suggest an alternative and more attractive method of space travel. Neither need we await further developments in physical science; the pioneer never has waited, and never will, upon others when he has become inspired by a new idea.

The book is intended for both the interplanetary expert and the amateur enthusiast in this subject. The author, therefore, asks for patience from the more technically-minded reader, particularly where attempts have been made, by means of simple analogies, to clarify the more abstruse of his ideas. Some readers of this book may not believe in the existence of flying saucers. Even if flying saucers are not accepted, the author hopes that this book will suggest to believers and non-believers the possibility of a new and better way for earth-men to achieve their dreams of interplanetary flight. It may well be, even in our own time, that men will discover the key with which to unlock a force that is all about us and so enable us to use it for all our industries, transport, and, finally, space travel.

Bricket Wood

LEONARD G. CRAMP

1 Rockets or Saucers?

IN this, the dawn of the atomic age, perhaps more than ever before, man is looking to the stars. Rocket propulsion is becoming a highly developed science and, indeed, plans are already laid for our first man-made satellite, which will be assembled in space to circumnavigate perpetually the earth. This artificial satellite is to be the first stepping-stone of any interplanetary flight, the base for our first explorers of space on their way to the moon and beyond. To even the least imaginative of us, these words conjure up fantastic visions of other worlds, with possibilities of different forms of life, of observing new cultures, fresh sciences and religions, and, not least, of seeing our own planet from afar. That interplanetary flight must come is a difficult thing for many people to believe. 'Why is it', they ask 'that with so much to occupy us in our own world, men should want to visit other planets? What good will it do us? Surely we can better spend our energies improving our own world, without troubling to visit others'.

But let us not lose sight of the fact that we and all the other teeming millions of souls live in a universe together. The boundaries that separate the planets are comparable only with the boundaries that separated our continents a few years ago. When we at last remove the boundaries that exist in space, it will become apparent that the universe is but an extension of the world in which we live. Why, then, should

we not take an interest in the other planets, as we take an interest in other countries to-day? The yearning to travel to some far off planet is perfectly natural to all thinking beings; it is our destiny that we are privileged to be able to speculate on the wonders of such a journey. In order to transform the dream into reality, an ever increasing number of people are making efforts to develop the rocket as a means of breaking the bonds of the gravitational pull that bind us to our earthly home. Problems of the highest order are being met and overcome by those whose enthusiasm knows no bounds.

The would-be astronaut has his dream of a shining artificial earth satellite, with which he may explore the outer spaces. The militarist on the other hand sees in it only the reflection of power and world dominion. His kind are numerically predominant. Are we to wonder therefore that visitors to our planet would venture near only with the greatest caution?

Unfortunately for us all, it is the militarist who has the strongest pull on the strings of world resources, so in order to achieve our dream we must join in the queue and be patient, for even the militarist has his job to do, and all paths will one day unite.

Fortunately, however, we are not restricted in scientific speculation and that at least is something we can indulge in for our own enjoyment. What may become of our speculations we do not know but we can hope that the fruits will be used for the benefit and enlightenment of mankind.

Left to its natural conclusions, the development of the rocket as a space vehicle will obviously go through several stages. First, there is the bi-fuel step rocket principle that is being explored to-day. Secondly, the more advanced nuclear reaction rocket at present only dreamed of. Finally as a result of findings brought about by atomic research, an entirely different and far more efficient means of anti-gravity will be discovered.

Left to itself, the evolution of the rocket to this stage will take a long time, perhaps as long as did the evolution of the internal combustion engine. Principles now considered sound may yet be accounted as crude as is the reciprocating engine when compared with the rotary movement of the turbine. The early designers of the internal combustion engine were influenced by Watts's reciprocating principle. Had Parsons's steam turbine been developed first we might to-day be further ahead in certain applications of motive power.

Must we persevere with the rocket as a means of interplanetary flight? Is there no other way to hasten the process? Yes, I am convinced that there is a better way to the stars. Those who will take the trouble to investigate will find there is very strong evidence indeed in support of my ideas. In some respects it may be a disquieting thought to us who are rocket technicians and enthusiasts that the rocket may never be employed as an interplanetary machine. It is perhaps a discouraging thought and will not be well received by many, but if we are truly determined in our

efforts to get to the stars we should welcome the possibility of a better means of doing so and be glad to examine any theory without prejudice.

It may well be that some of us have been privileged to witness a preview of a more practical inter-stellar space vehicle, though it is denied by most, and ridiculed by many. The so-called flying saucer may be a reality, and we are privileged because the idea should at least act as a stimulus to our own developments in this field. The question may well be asked, do flying saucers really exist? Is there any reason why we should even consider an interplanetary explanation of the phenomena? We will be wise to consider the available evidence before arriving at a conclusion, and endeavour to adopt an unbiased frame of mind. Scientific discovery has often brought martyrdom to its author— originality of thought has a way of offending the orthodox.

It is conceded, however, that we should deal only with facts and formulate our conclusions from a sound premise.

With most subjects there is chaff and grain, and flying saucer stories are no exception. We must do the winnowing, while remembering that to cling to the rocket as a means of interplanetary transport and to deny the possibility of a better means is to exhibit a bias not worthy of scientific thought. For this reason alone we must give the flying saucer case a fair hearing. The effort may in the long run bring the prospect of interplanetary flight more within our reach.

The whole subject may take on a far wider significance, and our nearest neighbours may not be years of travel away from us as we at present think.

When commencing our investigations, it will be appropriate to study an account of the Kenneth Arnold story, for it was with the report of his strange experience that the flying saucer story began to be seriously considered.

On Tuesday, 24th June 1947, Kenneth Arnold, aged 32, a successful business man, was returning in his own plane from business in the town of Chehalis in Washington State. He had intended to stop at Yakima, also in Washington, but had deliberately made a detour as pilots in that area had been asked to keep a lookout for a large troop-carrying transport which was believed to have crashed in the vicinity of the south-west side of snowy Mount Rainier that stands up from the Great Rockies Range. Arnold had climbed to an altitude of 10,000 feet and was circling the huge platform from which the peak rises so that he could obtain a good view of the desolate gullies in any one of which may be the wreckage of the missing aircraft. Visibility was extremely good. Arnold was scanning the dazzling sight when suddenly a flash caught his eye. On turning he was amazed to see nine objects flying like a line of geese, swerving in uncannily perfect formation among the mountain peaks. Arnold watched them for two minutes; he also estimated their speed

as they swept past various landmarks. They were travelling at about 1,000 miles per hour. Arnold found

it difficult to believe that any beings could fly on the erratic course they were taking as they hurtled among the snow peaks. But more than anything else it was the shape of these objects that amazed him; they were unlike any aircraft he had seen, for they resembled plain circular plates. No wings; no fin, or the like could be seen. Arnold used such a description when he was later interviewed by reporters, someone coined the phrase ‘like an inverted tea saucer’, and what may well be the most remarkable piece of engineering our present civilisation has ever seen was labelled after man’s most common invention, ‘The Flying Saucer’.

More people made a habit of looking skywards, and as a result, more saucers were seen. Reports of strange things seen in the sky many years ago were brought to light and significantly, they were nearly always identical. Now, six years later, reports of saucer sightings are just as numerous. Except for an occasional lull they come in a steady stream from all parts of the world.

The question ‘Why always America?’ has frequently been raised by sceptical saucer enquirers who feel that the majority of sightings come from the United States. In a way it is a fair question and we can attempt to answer it only by pointing out that the United States, apart from being geographically large, has an extensive rocket and atomic research programme in operation, and this is perhaps an attraction to a visitor from another planet. We, too, would like to observe another planet’s experiments of this nature. Although it is true that a large percentage of sightings have come from the United States, the rest

of our globe has seen its share. Reports range from South Africa to India, from the United States to Bangkok, from Switzerland to British Columbia. Hardly any area indeed has been neglected. During the second great war pilots frequently saw saucers over the continent and

gave them the nickname of‘foo’ planes. They have also been seen many times over Korea. In fact, these mysterious visitors seem to have shown concern over our many conflicts down through the ages, knowing perhaps that it would be futile to interfere. Generally, reports of these strange objects have included a variety of shapes, and for those who may not be well acquainted with them here are several reports in which are described the most common of these visitors.

On 29th January 1952, the crew of a Super Fortress bomber were on a night mission on the Korean front. They were over Wonsan, a rather important harbour on the north-east coast, when a strange thing was seen outlined in the night sky. It was a disc-shaped object, spinning about its central axis, slightly above and on a parallel course with the bomber. Orange in colour, it had what appeared to be small bluish flames dancing about its revolving rim. After keeping pace with the bomber for five minutes, it vanished suddenly into the night. While the crew were puzzling the intelligence staff back at base with this story a similar report was being made by another Super Fortress squadron some miles away. This squadron had been on a night mission over Sunchan, about eighty-nine miles from Wonsan,

and during their flight, an object like a revolving globe had been seen. It, too, was orange in colour and, apart from the different shape, had behaved in the same way as the other case, following the bomber for a while and then abruptly vanishing. Both these reports came from reliable men; men with good records behind them, experienced and level headed. Both reports were made independently at different places at about the same time. This would suggest that the revolving globe type object was a different kind of saucer, but as we shall see, it is more likely that it was a disc on edge, presenting its upper or lower surface to the observers.

Such an argument is strengthened by other similar instances, such as the case of Captain Robert Adickes, a Trans-World

Airlines Pilot who, together with his crew and some nineteen passengers had a rather startling experience when on the night of 28th April 1950, an object flew alongside their plane. Captain Adickes tried several tactics to get nearer to the thing and finally turned his plane straight towards it, but here again the thing pulled away with that terrific acceleration associated with the flying disc. This one, however, was red in colour and bowled merrily along on edge, like an outsize wheel in the sky.

This rapid rate of acceleration is a most important characteristic of the flying saucer, and we will be wise to bear it in mind while examining our theory. Captain Adickes is quoted as saying: ‘Whoever is building these things, I think they are dangerous flying around

the airways. If one got out of control it could cause an accident'. This view is shared by many who have investigated the flying saucer phenomena. No authority that we know of would allow such a vehicle to endanger its country's airways.

Had these visitors from space demonstrated one particular design of space ship to us, it would still be puzzling enough. As it is they have complicated the issue by exhibiting several different designs and we are left to ponder on their various applications.

The shapes have varied greatly. There have been the plain saucer, the triangular or delta shaped object, flying cones and torpedo-like bodies that hurtle through the sky. We can of course speculate about them, without any really satisfactory answer. Perhaps one day we will know, but one thing stands out above everything else. We can be reasonably certain that the motive power is much the same. Torpedo-shaped bodies without wings do not stay aloft unless they are some kind of lighter-than-air craft and as with the saucers we have the evidence of those same tell-tale lights. It has been suggested that they may be an earlier design, but what seems more likely is that they are a type of mother-craft to the saucers.

It seems that this model has been visiting the earth for a considerable time for there are many historical reports of such craft down through the ages, but an account of a recent sighting may be considered more authentic.

Captain C. S. Chiles and his first officer, J. B. Whitted, both officers of the Eastern Airlines Incorporated, with fine records as war-time pilots, were flying a passenger aircraft from Houston, Texas, on a normal trip to Atlanta, Georgia. The date was 23rd July 1948; the time was just about 2.45 a.m., and they saw the object with the help of a good moon. A mammoth of a thing, it had come hurtling towards them out of the night. Captain Chiles managed to swing his aircraft to the left and the thing swung violently to the right with a bare 700 feet between them. Both pilots had a good view as it rushed past them. It was about a hundred feet long, without wings or a fin of any kind, but they observed that it had a forward 'cabin' through which the most dazzling incandescent light was streaming. Along the entire length of the thing there was that same band of purple light that is frequently seen dancing round the rim of the more common saucer type. There were two rows of what looked like windows along the side, while from the rear of the craft there gushed an 'exhaust' that would put a V2 to shame. About fifty feet long and orange in colour, this super torch suddenly doubled its length as the craft accelerated up through the clouds. No doubt it would be difficult to persuade Captain Chiles and his first officer that what they had seen was a mirage. No doubt they remember quite clearly the disconcerting lurch their aircraft gave as it was caught in the 'back wash' of that strange craft.

Leaving his second officer to fly the plane, Captain Chiles immediately went into the passenger compartment to see if anyone had noticed anything

unusual. We must remember that it was a late hour of the night, 2.45 a.m., when most passengers would be asleep, but Captain Chiles was not

disappointed, for a Mr McKelvie had seen the strange object and he, too, had noticed that same eerie light, a light unlike any he had ever seen before.

Later reports showed that at about 2 a.m. that same night observers from Macon Flying Field (Georgia) had reported seeing a strange object rushing through the sky. It had resembled a long wingless tube which appeared to be propelled by the gushing flame at its stern.

It seems that both before and after Captain Chiles's experience the cigar-type craft has been seen in most quarters of the globe. France, Switzerland, and Australia have been visited, but perhaps the most outstanding among those sightings is the one that took place over New Delhi, India, at 10.20 a.m. on the morning of 15th March 1951. It was seen circling the city by thousands of people and among them as they stood fascinated was a Mr George Franklin Floate, the Chief Engineer of the Delhi Flying Club. With several members of the club he had ample time for observation, for the object had stayed within sight for a full twenty minutes. Mr Floate described the thing as a 'bullet-nosed, cigar-shaped object about a hundred feet long, with a ring of flames at the end'. There seemed little doubt that the object was metallic, for it had caught and reflected the rays of the sun as it turned in the sky. The estimated altitude was some five thousand

feet, and it moved noiselessly at a conservative estimated speed of two thousand miles per hour.

Three jet fighter pilots belonging to the Indian Air Force were sent up to investigate the strange craft, but they were disappointed, for it quickly gained altitude and finally disappeared at a height of twenty thousand feet.

That same night a similar object had appeared, this time over Allahabad, four hundred miles away, but that was not the last to be seen of it, for it appeared again fourteen days later. This time it visited Willingdon Aerodrome, the headquarters of the Delhi Flying Club. And once again Mr Floate

had been there to watch it. On this occasion the object preferred to move ‘slowly’, its air speed being estimated at approximately five hundred and fifty miles per hour. As before, its altitude was about five thousand feet. Still without apparent sound, it had suddenly assumed an angle of eighty degrees and vanished at tremendous speed, leaving what appeared to be a ‘whitish, swirling cloud trail’ which had persisted for ninety minutes. On two other occasions Mr Floate had the opportunity to watch the craft as it circled the Delhi Flying Field, both occasions being at night, once in November and once in December of 1951. In the darkness of the night its tail had that queer fluorescent lighting. We may ask: ‘Did these people really see these objects, and if so, were the objects what they took them to be, or were their observations misinterpretations of something else?’

2 Mirage or Fact?

DOCTOR MENZEL, Professor of Astrophysics at Harvard University, has recently written a book called *Flying Saucers*, in which he has gone to great lengths to show us how easily we can fool ourselves. No reasonably minded person who has read the book can fail to praise the author's sincerity and the meticulous thoroughness with which he has tackled the subject. There will be many who will reject the whole work simply because they belong in the category termed by the Professor 'Saucer Diehards' or 'Saucer Cultists'. Of the flying saucer phenomena he says: 'We are not inevitably rejecting the interplanetary solution. We are merely asking for permission to consider other natural possibilities before accepting the interplanetary hypothesis'. This surely is the attitude any reasonably minded person would take, certainly it is quite fair. We welcome the Professor's theories and will profit by them. Without possible doubt there have been many reported saucer observations that can be attributed to the natural phenomena that he describes. We must, of course, be on our guard against the hoaxers, but here we must pause and ask the Doctor whether, even allowing his explanations to be correct in a high percentage of the cases, has he really sifted the evidence thoroughly, or is he, too, just a little biased? We cannot, for instance, explain satisfactorily as atmospheric phenomena the pendulum motion that seems to be a

characteristic of the saucer. It is very difficult to imagine a mirage or ‘atmospheric lens’ behaving in this way, and in order to do justice to such reports we must analyse them and judge for ourselves as to whether they are just plain hoaxes, fairy tales, or reflections in the sky. We would suggest that it is significant that reports such as the following have been left out of Doctor Menzel’s collection of saucer sightings. Two Brazilian reporters, Ed Kefiel and Joac Martins, had been sent by their editor to a place called Ilha dos Amores (Isle of Lovers), in the district of Barra da Tijuca, Brazil, on work in connection with an illustrated article for their magazine.

The date was 7th May 1952. Kefiel had his camera loaded and ready to start work. The time was nearly four p.m. when Martins drew his attention to what he thought to be a queer looking aircraft coming in from the sea. At first they thought it to be a head-on view of a distant aeroplane, but were puzzled because the thing was travelling sideways and at considerable speed. After a few seconds Kefiel started to take photographs and by now both men had realised that the object was in fact a circular disc moving soundlessly without a sign of vapour trail or any clue as to its propulsive means. They observed that the disc was blue-grey in colour and definitely not glowing, but metallic in appearance. After completing a semi-circle over the Tijuca woods, it ceased its headlong rush and started to slip in ‘pendulum fashion’, losing height just like a falling leaf from a tree. It then accelerated at a terrific rate and disappeared the way it had come, out to sea. Kefiel was able to take five pictures in all. Later these were shown

to Sir Miles Thomas, Chairman of B.O.A.C. whose comment on them was ‘I think it is the wheel cover of a D.C.3 or a D.C.4. This is usually a bluish-grey pressed duralumin cover which is fixed over the wheel once the undercarriage is up. As it was seen in an area normally used by aircraft, it is quite likely that one of the covers could

have become detached’. A comparison of the Brazilian pictures and D.C.4 wheels reveals no similarity as suggested by Sir Miles. Apart from which the reporters are certain the object was large, ‘twice the size of an aeroplane’. If we examine the picture of the disc, we will, unfortunately, not be able to pass an electric current through it in order to establish whether the thing is metallic or not. (The test being the only satisfactory one, according to Doctor Menzel.) At least we can be reasonably certain that the object was real and that it had a definite and symmetrical shape: not just a fiery lump in the sky but something that *looks* as if it were fashioned in that particular way for a reason.

Closer scrutiny would suggest that there is more to such reports than just natural sky phenomena, the object dropping down like a falling leaf, then darting back the way it had come. Surely we must accept that such behaviour would be queer even for a mirage. One is inclined to feel in fact that there can be no two ways about it. This story was either genuine or a hoax.

However, there is a family likeness between the many different sightings, and this similarity would indicate the truth of the reports. For instance, let us shift the scene to England, where a group of R.A.F. airmen

claimed to have seen a flying saucer during the eight nations exercise ‘Mainbrace’ which took place in September 1952. The airmen were at Topcliffe, Yorks R.A.F. Station and they saw the disc following a Meteor aircraft. One of them, Flight Lieutenant John W. Kilburn, 31, of Egremont, Cumberland, reported seeing ‘something different from anything I have ever seen in three thousand seven hundred hours flying in a variety of conditions. The Meteor was coming down from five thousand feet. The sky was clear, there was sunshine and unlimited visibility. The Meteor was crossing from east to west when I noticed the white object in the sky. This object was silver and circular in shape, about ten thousand

feet up some five miles astern of the aircraft. It appeared to be travelling at a lower speed than the Meteor, but was on the same course. I said: “What the hell’s that?” and the chaps looked to where I was pointing. Somebody shouted that it might be the engine cowling of the Meteor falling out of the sky. Then we thought it might be a parachute. But as we watched the disc maintained a slow forward speed for a few seconds before starting to descend.

‘While descending it *was swinging in a pendulum fashion* from left to right. As the Meteor turned to start its landing run the object appeared to be following it. But after a few seconds it stopped its descent and hung in the air, rotating as if on its own axis. Then it accelerated at an incredible speed to the west, turned south-east and then disappeared. It is difficult to

estimate the object's speed. The incident happened within a matter of fifteen to twenty seconds.

'During the few seconds that it was rotating we could see it flashing in the sunshine. It appeared to be about the size of a Vampire jet aircraft at a similar height.

'We are all convinced that it was some solid object. We realised very quickly that it could not be a broken cowling or a parachute. There was not the slightest possibility that the object we saw was a smoke ring, or was caused by vapour trail from the Meteor or from any jet aircraft. We have, of course, seen this, and we are all quite certain that what we saw was not caused by vapour or by smoke. We are also quite certain that it was not a weather observation balloon. The speed at which it moved away discounts this altogether. It was not a small object which appeared bigger in the conditions of light. Our combined opinion is that it was about the size of a Vampire jet—and that it was something we had never seen before in a long experience of air observation'.

Here then is the similarity between two individual cases, one on either side of the Atlantic, observed by responsible

people, both parties experienced in observation. Had a photograph been taken by the airman at Topcliffe, undoubtedly by their descriptions we would have had something very much like that taken by Ed Keffel. It was real, with a definite shape, let us repeat, not a blurred impression in the sky, and it rotated on its own axis, and was observed both from the air and from the ground. Surely we must come to reason that the objects

were three dimensional structures and entirely free of atmospheric reflection or the like? Here again is that rather queer pendulum motion and the question arises, if we are reasonably certain judging by the descriptions that neither case can be attributed to atmospheric phenomena, are they then hoaxes? Surely it would be a sad day for us all if we could not accept the word of responsible R.A.F. personnel and, in this case, quite a few people were involved. Are we to believe that officers and other ranks have nothing better to do than fool the public? Let us be careful in our summing up: let us try not to be biased one way or another, but only to seek the truth in as fair a manner as possible.

It is as simple as this. In the above two cases there are three possibilities: (1) The objects *were* seen, but,as Doctor Menzel says, were atmospheric phenomena. (2) The reports of such objects were false and for some reason or another just hoaxes. (3) The objects *were* seen, were real solid structures and have a place of origin on this or some other planet.

If the argument is reasonable and we reject the first two possibilities on the grounds of the photograph and for reasons given, we are left with the remaining possibility—(3), and this can certainly be answered without any doubt.

For an overwhelming weight of evidence can be produced to show that our planet has been visited times without number, long before the Wright brothers had so much as succeeded in their epoch-making flight.

The ability of the flying saucers to roll along on edge

like a giant cartwheel, suggests them to be something other than aero-dynamic. This fact, together with the observed high rates of acceleration, their ability to hang motionless and silently in the sky, their personal 'Aurora Borealis', all place them well beyond anything we have in the way of aircraft or rocket.

Finally, it is extremely unlikely that any nation on earth has developed such a craft, and even if they had, most certainly they would not be so brazen as to show it off so frequently to their neighbours. Therefore there can be only one conclusion, that these craft do exist, and we are privileged to welcome—if we will—those who visit us from another planet.

Doctor Menzel has warned us against accepting all sky phenomena as flying saucers. I agree with him, but would like to apply his arguments the other way round; let us not fall into the error of interpreting the unknown in terms of the known. I would ask the sceptics not to overlook all the details of the various sightings merely because some of them do not fit in with accepted theories. Let us examine two further cases.

Here are two typical reports of the type which cannot be explained by heavenly phenomena, and are therefore presumably written off by Doctor Menzel as hoaxes.

10th April 1950. *Los Angeles Times*

Scorched boy insists he touched Saucer. Amarillo, Texas, 9th April (U.P.).

David Lightfood, 12, sighted what was at first thought to be a balloon, but turned out to be an object about the same circumference as an automobile tyre and about eighteen inches thick.

It was rounded at the bottom, with a top resembling a flat plate. He barely touched it when he claimed it was slick like a snake, and hot. It was blue grey in colour and had no opening other than the divided section. (There was

some release of gas or spray when the object took off, which turned his arms and face bright red, causing weals.) A younger boy of nine confirmed this story.

25th August, 1952. *Daily Herald*.

Flying Saucer knocked him out. *New York*, Sunday. A ball of fire said to have knocked out a thirty-year-old Scout Master, has sent the Air Force Flying Saucer Investigation Squad to Florida. There it has been told a strange story by ex-marine Scout Master D. S. Desverges, who says he was going home with three scouts when he saw flashes of light in a wood. Going to investigate he saw 'an object large enough for six or eight men to stand in. It was about ten feet high in the centre and about thirty feet in diameter and shaped like a half rubber ball, tapering down to a three foot thickness on the side. I believe I was under and near it for about three minutes. It was only ten feet from the ground'. 'It made a hissing sound like a tyre going down'.

Desverges said that from the object a flare was shot at him which seemed to float slowly towards his face. 'When I awoke' he added, 'I had no sense of feeling'. A Deputy Sheriff reports that the hairs on Desverges arms had been singed and tiny holes burned in his cap. There was some scorched ground near the spot. When Desverges came from the wood he is said to have looked like a wild man. The scout master's story is being closely studied by experts. It may be that boy scout Rowan has given a clue. He says that soon after the scout master went into the wood something went off. 'It looked like a roman candle'.

Such reports as these are definitely not in the same category as ‘mock suns’, or other natural phenomena: they are either fact or they are hoaxes.

It is such reports that Doctor Menzel passes over as unreliable, but is he being fair? Should he not give these reports

just a little benefit of the doubt and apply his scientific detection to a study of them. Let us examine these reports for ourselves. To begin with we will be cautious and suppose the first report was a hoax and the latter is just a build-up on it. To the layman there is hardly any similarity between the two reports yet there is something, and that something may be of great importance. In the case of David Lightfood, the boy is quoted as saying ‘There was a release of spray or gas’ and any subsequent build-up of this by other hoaxers or tale spinners would surely be that there was a smell of gas, or some such similar description? But in the case of Scout Master Desverges a *noise* ‘like a tyre going down’ was described. That is the subtle difference that we must consider before passing hasty judgement. Had both these reports mentioned a noise or a gas, there would be reason for caution before accepting them.

As it is they are described so differently, but with that one small piece of evidence: ‘There was a release of spray or gas’, and ‘It made a noise like a tyre going down’. It would be stretching the imagination a little to believe that one was a fabrication of the other. Yet a gas being released fits the description ‘like a tyre going down’ very aptly.

There is, indeed, a ring of truth in reports such as these, and along with the mirages and the mock suns, they too deserve closer scrutiny. Doctor Menzel has in fact made several statements which need clarifying. For example he states quite definitely that ‘a single reliable report would be enough to justify all the interplanetary saucer theories and more.’

Then again he says: ‘The Air Force cannot point out a single authentic or even possible authentic saucer picture’.

Now the question arises, just what is a reliable report, and further what exactly is an authentic picture? Are we to assume from that that only reports compiled by scientists of their own observations and their own photographs can be regarded as authentic?

If one day we are out taking a walk, and we spot a saucer and we are lucky enough to photograph it, presumably the picture and our information are not reliable or authentic. Now on the other hand, should we slip on the uniform of a ‘brass hat’ and repeat the experience and then complete bundles of forms tied with red tape, presumably such reports and photographs would be considered authentic? The difference is, of course, that the public would never see or hear of it.

Let us get this authenticity business right. A group of thirty people see something very unusual in the sky and duly report it. During this experience one of the number manages to take a photograph of the phenomenon and hands the picture over to the local authorities. Something has been seen by a group of ordinary

people, and they do not understand it; the local authorities cannot understand it either.

Something has been seen which, unless we are all going crazy, is definitely not a mock sun or anything like it; something which has a definite shape; something which indicates a perfectly symmetrical cross section, not just an obscure blob or oval, but with a purposeful-like appearance. This then cannot be regarded as authentic simply because it is unusual. But who, may we ask, is going to produce the first ‘authentic’ report? Even allowing for the small percentage of liars, hoaxers, and what-have-you among us all, surely we can at least place our trust in a few normal people? People similar to those whose observations were perfectly authentic during the last world conflict, when the V2 started its work of destruction?

For obvious reasons no word was then mentioned by the authorities. But the point is, these same people saw and experienced something terrifying and unusual, terrifying because of its very nature; reports were made to the local authorities, and people were told that the mysterious explosions were caused by weakened gas mains; ‘gas mains’ comparable with Doctor Menzel’s ‘mirages’, but then there

definitely was something else as we were all to discover later on.

Then again there are many people, and we must place Doctor Menzel among them, who, when discussing the existence or non-existence of interplanetary flying saucers, repeatedly talk of people

being afraid, and associate the fear complex with reasons why some people want to believe in the existence of these ‘invaders from another planet’. May we respectfully ask, just who is afraid? The public? Almost certainly not! No doubt here and there one will find a few who, by their extreme ignorance, would panic over these visitors, but the majority of people who take notice at all are in fact just curious. We hear a lot about the so-called fear hysteria, but it is very difficult, if not impossible, to find any real evidence of it.

Granted there is a tendency for us all to experience a little apprehension over something that is by its very nature alien to us, just as an old lady would be apprehensive over her first aeroplane flight, but certainly nothing approaching downright fear or panic. Let us be rid of this bogey right away. The author has discussed this point of view with many people who form a good cross section of the public, and it is his firm belief that most people are definitely not afraid. Lest we be misunderstood, let us repeat that Doctor Menzel’s work should be and no doubt will be respected by all seriously minded people who are interested in the flying saucer, and we must too, accept the fact that there are such things as mirages, mock suns, and atmospheric lenses; and that a high proportion of saucer sightings can be attributed to them. But even in the light of this information it would be foolish to condemn those observations which cannot be attributed to atmospheric phenomena as just hoaxes. That there are many such cases is beyond doubt; that they are not hoaxes is beyond doubt. Doctor Menzel’s explanation

does cover a large area of the truth, but there is still a large corner left uncovered, and if we look carefully enough, within that

corner we will eventually find just that single reliable report to justify the interplanetary flying saucer hypothesis!

Doctor Menzel is not alone in his opinion, for only recently our own Astronomer Royal, Sir Harold Spencer Jones, F.R.S., wrote an inspiring article for a newspaper ‘Now Bury these Flying Saucers’, to kill once and for all-time the bogey of the interplanetary flying saucer. In fact, his conclusion was that ‘it is time the question was closed for ever’. To hear such biased opinions coming from people who by the very nature of their work should be more objective, is to stir more than a little suspicion in the minds of all those who think for themselves.

Of the two, perhaps Sir Harold is the more biased when he says: ‘I can say quite definitely and with absolute assurance, that none of the flying saucers can have come from another planet!’ Apart from that important sentence, his argument is practically the same as Doctor Menzel’s.

It is of interest to note that most people when arguing about the existence or non-existence of the flying saucer, seem to take it for granted that such a vehicle would be subjected to the same forces as any known type of projectile, inasmuch as the disc in passing through our atmosphere at fantastically high velocities would be heated to incandescence by the excessive skin friction. Doctor Menzel is not the least among them.

Brilliant scientist he may be: he is still harnessed to the rocket and cannot or will not recognise something which has not been achieved by man already. Of a brass nodule said to have dropped from the sky in the form of a green fire-ball, he says, ‘The saucer diehards also cannot explain the existence of brass on natural grounds. But where I regard the object as a hoax, they accept without question that the brass nodule came from space and thus draw conclusions about space ships of brass—space ships moving fast enough to melt their brass trimmings when they swing in close to the earth.’

Again when describing ‘The Great Saucer of 1882’ he says, ‘A solid body of this size, moving at this speed (approximately ten miles per second) through the upper air, would have produced a very different type of phenomena; its leading edge would have seemed to be on fire and sparks would have showered behind to form a long luminous trail that would probably have persisted for hours. The swift silent motion performed without any change of shape ascribable to the motion itself, makes it imperative for us to discard the hypothesis that the body was solid’.

It is with reasoning like this that Doctor Menzel has tried to strengthen his case, and no doubt a great number of people will accept his arguments; after all, he is a professor of astro-physics. He and people like him should know. But that is a very wrong assumption to make, as a moment of reflection will show.

Perhaps the invention of the jet engine will serve as an example. On the one hand we have several thousand

students studying the design of the present day piston engines; they become well versed in the subject, and eventually are employed by engineering concerns in the development of it, stepping up the efficiency, decreasing the weight, and so on. Quite a number get through to actually designing piston engines and become experts who can think ahead of others in that *particular field*; but nevertheless they are very often in a groove, a worth-while groove it is true, but they know so much about the one subject and spend so much time at it that they find it almost impossible to turn aside to something quite different.

On the other hand we find one in the several thousand who is not in a groove, and he is in an advantageous position, because he can watch the others and so gain information for a different type of groove, and when that happens we get an invention like the jet engine. Very soon there will be more experts in a groove.

The whole point is that we can study mechanics as others have demonstrated them to us and understand them, but find it very difficult to accept the shock of something a little farther along the road. And so we come back to the impossibility of a body moving through an atmosphere at high velocity without heating up or changing shape, and it is said that anyone can see the phenomenon must be optical in nature, and interplanetary flying saucers an illusion!

But let us try to get out of that groove. The answer may be very simple; so simple, in fact, that we may be inclined to overlook it, for it may hurt our intellectual

pride. Just suppose that the air in immediate contact with a flying disc moved with it. What then?

We might equally say that there are those who will never accept the interplanetary flying saucer hypothesis; that is, of course, until they do actually see one, and presumably pass a current through it to establish first that it is constructed of some kind of metal, and secondly that they are not dreaming. Such people usually find it so easy to know everything there is to know about something that has already been achieved, and find it very difficult, if not impossible, to speculate about something we are only beginning to understand. How very often it is that we find the self-proclaimed sceptic of a subject finally having to admit that he has never even made a study of it.

Therefore let us try to adopt the wise attitude, which is that we do not really know but we will at least make the effort to find out.

Unfortunately the author cannot any longer claim to be among those who 'believeth yet not see-eth', for during the process of preparing this book, he experienced the privilege of observing an interesting phenomenon.

As saucer stories go it is very commonplace, and it is with some hestitation that I record it, but enthusiasm wins, so here is the account of the incident. (Sceptics please note. I

was neither drunk nor suffering from hallucinations at the time, any more than at this moment, I 'believe' I see this page upon which I 'believe' I am writing.) At the present time my home is situated in a rural area in

Hertfordshire, so the setting is ideal for observation, the air is clear and there are no distracting lights at night.

It was on a clear crisp night in October 1953 while taking a stroll that my attention was drawn skywards by the noise of a passing aircraft. After a few moments I spotted a coloured light in the sky towards the west, and I took it to be one of the plane's navigation lights, but my attention was sharpened when I realised that the light was drawing nearer, travelling due east, while the aircraft noise I had previously noticed was becoming inaudible. The 'light' kept coming on at what would seem to be a normal rate and very soon it was obvious that it was too large to be an aircraft navigation light. By this time there was not a sound to be heard. The air was still enough to hear a low flying aircraft even without its engine running, and this aircraft would have to be pretty low to show a navigation light so large, for by the time the thing passed overhead the light was approximately two-thirds of a full moon's apparent diameter. It was luminous with a bright orange glow, and, as near as I could tell, was circular. As I watched, the object began to show its paces by accelerating at an amazing speed in a large and easy curve, getting smaller as I watched it. Then while still quite discernible, it suddenly vanished, as one would snuff out a candle. That the object was not the navigation light of a low flying conventional aircraft, I am certain, for the altitude would have to be down to a minimum to show a light that size; and there would definitely have been some slipstream noise and possibly a dim silhouette. That it wasn't a meteor or anything like it, I am certain. A meteor presents little more than a streak

in the sky, and is usually white in appearance, not the healthy orange of this sky visitor.

So there it is, just one more insignificant little sighting to be added to the host of reports on record. Finally, I am convinced that what I saw was a real three dimensional object. I have no doubt whatsoever that it was neither a mirage, mock sun, shooting star, or the like.

And should this small contribution fail to offer any real evidence, perhaps the following report will help to convince Doctor Menzel and people like him that real solid flying saucers are visiting our skies.

The Observer. Sunday, 11*th October* 1953.
Seen over Norwich.

Sir.—While observing the sky over Norwich at 7.15 p.m. on Tuesday last, 6th October, I noticed a bright and very large object appear from the south-west. It appeared to be a very large yellow star. I then noticed it was travelling on a level plane, and with the naked eye it now appeared oval-shaped, like a cluster of tiny stars. I waited for a favourable opportunity and focused the object in my 3½in. refractor telescope.

On bringing the object into focus, the apparent cluster of stars took on the appearance of a dome on a large flat disc. The dome had apertures placed at intervals around it, four of which were in my field of view. Light from these apertures made the disc visible. The top dome did not rotate. There was no noise to be heard from where I was observing, and the object kept a constant altitude.

Under the disc a cavity could be seen, and this glowed a dull red colour. I saw no traces of gas or flame.

The object travelled south-west to north-east and remained in my view for three and a half minutes. The sky was perfect with no cloud. All the constellations were visible, and this object was seen independently by at least seven other Norwich people—members (like myself) of

the Norwich Astronomical Society and the British Astronomical Association.

Norwich.

F. W. Potter

In a later article which appeared in the *Daily Mail*, 11th February 1954, written by J. Stubbs Walker, and headed 'Was it a "Saucer" they saw over Norwich?' Mr Walker tells us …

'Now, here is a strange thing about what the Potters saw and what Mr Potter drew. The whole of his description is very much like the much-questioned photographs of a flying saucer supposedly taken at short range by Mr George Adamski and published in his book *Flying Saucers Have Landed*, except for the vital fact that Mr Potter drew what he saw in his refracting telescope, *which reverses the image*.

'His flying saucer was not flying the same way up as those of Mr Adamski, and no amount of arguing will make him change his mind. Mr Potter had previously seen a representation of the Adamski saucer and was consequently aware

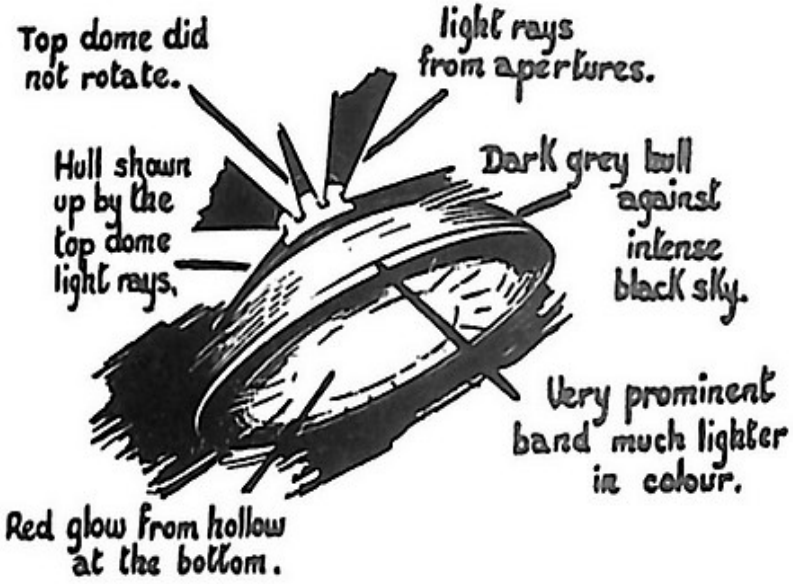
Top dome did not rotate.
light rays from apertures.
Hull shown up by the top dome light rays.
Dark grey hull against intense black sky.
Very prominent band much lighter in colour.
Red glow from hollow at the bottom.

Fig. 1 This drawing, reproduced by courtesy of the "Eastern Evening News," was copied by a member of that paper's staff from a sketch made by Mr. F. W. Potter immediately after he had sighted the object he describes.

that what he saw might be expected to be flying the other way up.'

At first hearing this description would seem to complicate the issue, but it so happens that it strengthens the case for the theory outlined in this book.

Is there any point in further argument? Are we to suppose that eight people independently of each other in different places, suffered the same hallucination *at the same time?* Are we then to convince ourselves that the report is a hoax, or can we reason that most people who take an interest in telescopes and astronomy are not the type to indulge in hoaxes? Was this a case of misinterpretation of natural sky phenomena? Is it not

stretching the imagination a little too far for us to believe that at least eight people ‘thought' they saw the same vehicle with the same significant lighting and detail? When are people going to climb down to a commonsense attitude, because if they insist on star-gazing up there, it is going to get very draughty for them when the real truth of the flying saucer is made known.

As this little book goes to press, it would seem the wind has started to blow already, for information has recently been released regarding the Canadian Government’s attitude towards flying saucers. They at least consider the subject real enough to spend money on, for they have constructed a saucer-detecting station at Shirleys Bay, ten miles from Ottowa, comprising a laboratory packed with instruments and a team of experts engaged upon a twenty-four hour watch.

3 Limitations of Space Travel

MUCH has been written about the possibilities of space flight by rocket. Mr Arthur Clarke, Chairman of the British Interplanetary Society, has told us how Professor J. D. Bernal has suggested that eventually man may literally build cities in space, resembling tiny self-supporting worlds and housing thousands of human beings who would travel away from our solar system, seeking new planets in some remote galaxy in outer space. As the journey would take centuries, only the descendants of those who originally set out on the trip would arrive, and some writers have suggested that the descendants of such a colony may forget the original purpose of the journey, believing the stories of earth to be only a myth. They would go on perpetually travelling through space and we are left to speculate if there are such beings who wander thus perpetually visiting planet after planet, solar system after solar system, like we earthlings peeping into shop windows at night, spending their lives and maturing and dying on the way? Or is it more reasonable to think that even the remote outer galactic space is within man's reach, even within the span of one earth lifetime? According to the relativitist such a proposition may not be impossible. Doctor Einstein has shewn us that queer things happen as we approach the speed of light. Time would seem to go more slowly and our mass would seem to be increasing, until finally at the velocity of light our mass would be infinite and therefore it would take an infinite force to move it. The

relativitist tells us that a return journey by space ship at 99.9 per cent speed of light to a star a hundred light years away would take something like two hundred years to complete, but the crew of the space ship would say they had been away only nine years by their own clocks and instruments. Such a queer state of affairs is attributed partly to a natural phenomenon called the Lorentz Contraction which occurs to all solids travelling at speeds approaching that of light.

In actual fact, of course, the same is happening to a negligible degree, even at lower speeds, but the contraction and increase of mass is undetectable by Newtonian methods of measurement. This does not necessarily mean that Newton's laws are in any way inaccurate; it simply means that for everyday physical phenomena and speeds up to thousands of miles per hour, there is one set of measuring instruments and the readings will be quite accurate, but as we approach the velocity of light, new factors must be brought into consideration, factors that we had no need to consider before.

Einstein has proved the theory in many different ways; there need be little argument about it, but we must remember that just as Einstein's theory explains the limitations of Newton's Laws, so there might well be the need for a still further set of laws, after the speed of light. We cannot be sure, but the speed-of-light limit may in the end turn out to be another 'impassable sound barrier'. At any rate, if observatory reports are anything to go on, flying saucers do not

seem to be much deterred by the limitations of the speed of light.

Einstein may yet supply us with more significant information concerning the velocity of light, because it would seem there can always be an extension to any theory. For instance, let us suppose a body is moving beyond the speed of light, can we be certain that it would retain its original physical composition? Is it not possible that in some way velocity has not only the effect of increasing the mass of an object,

but also of altering its physical state? There can be little doubt that Einstein is still correct when he says that a *body* moving at the velocity of light would require an infinite force to move it. But it may well be that in reality the body, because of its velocity, would not then exist in our physical condition any longer. Therefore the formula no longer applies, and yet another set of yardsticks are required to measure the velocity of the body in its new condition.

As we unfold the theory in the following chapters it will be seen that it is quite possible that a body approaching the speed of light may undergo such a change of physical state, and further, the theory suggests that there is no ultimate velocity in the universe, provided the vehicle is moved in the right manner. Superluminary speeds may now be quite commonplace to those who originally conquered space flight thousands of years ago, though naturally we may find this a very difficult thing to accept.

Speculation on space flight by rocket and all its imposed limitations, is one thing. Speculations on space flight by the vehicle we call the flying saucer may involve far different considerations. We should never be too dogmatic about limitations of the velocity a body can attain, because there are far too many factors that we are unaware of as yet. In whatever branch of science we care to investigate it is the same; there is always a certain amount of retracking to be done, long accepted and cherished ideas have to be abandoned. In the light of this experience are we therefore going to believe that things are different now? Or shall we take the wise view that our researches and learnings tell us so much, but in the next and higher state of development, accepted laws can no longer be applied. To adopt any other attitude is to shackle ourselves to bias and to hasten our own destruction. We will be wise to retain such facts as these in our minds as we review the available information on the flying saucer.

4 Aerodynamics of the Disc

AMONG those who have seriously considered the flying Z—saucer are aerodynamists who are, however, reluctant to accept the interplanetary explanation. Nevertheless, they have not ignored the aerodynamic qualities of the disc-shaped aircraft. It is said that disc-shaped aircraft have been built and flown years ago—it would seem not without some success. More recently, the press has released information about a saucer-type aircraft being developed in Canada. (*Plate* 1.) The craft is still in the mock-up stage and is said to be nearly forty feet in diameter. The revolutionary feature about the plane is not so much the shape of the wing itself, but in the turbine power plant which it is claimed will rotate within the stationary wing and about the pilot's central capsule thereby giving the craft gyroscopic stability, as well as enabling it to take off vertically. Sir Roy Dobson, Chairman of A. V. Roe, Canada, Ltd, says that successful experiments have been carried out in Britain in getting such an aircraft into the air almost vertically. He says: 'Something along this line will have to be perfected. We cannot go on indefinitely building miles and miles of runways'. Just how the aircraft will be raised into the air nearly vertically is a little vague, but it is almost certain that it will have to be tilted. Nothing seems to have been said about landing. The basic design of the aircraft is of a nearly circular shape. The leading and trailing edge of the 'wing' form 'blunt' intake and

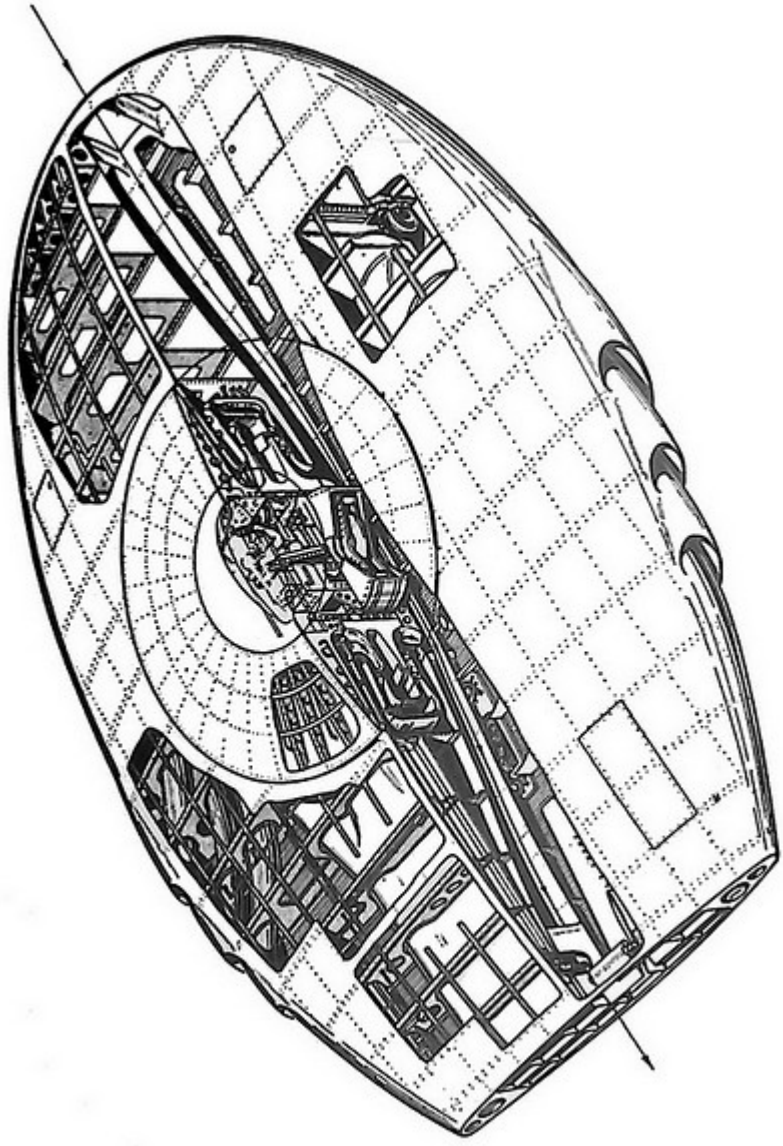

Plate 1 Author's impression of the A. V. Roe Project

exhaust ports. Air is drawn in the leading edge intakes and a large proportion of it is fed to the combustion

system in the usual way; the remainder by-passes the engine and mixes with the exhaust, which leaves via guide or central vanes in the exhaust ports.

It is said that the aircraft will be capable of speeds up to 1,500 miles per hour, while it is also claimed that 180 degree turns will be possible ‘without a change of attitude’, though what is meant by the latter is not at all clear.

Neither is it clear how the rotating power plant will give gyroscopic stability in normal flight, yet fail to pull the aircraft to pieces through gyroscopic couples in high speed aerobatic manoeuvres. In fact it is the ability of the real flying saucer to execute such acute manoeuvres while rotating about its axis, that helps to put it outside the school of aerodynamics and, for that matter, Newtonian mechanics.

It is extremely likely that we are not the only nation interested in the flying disc design. Russia is no doubt doing her share in the mad race to get there first. Saucers recently skimmed the rooftops in Belgrade and it was suggested that they were experimental models made by the Yugoslav Air Force. These miniature saucers are said to be forty inches in diameter, to weigh about four pounds, with a top speed of thirty-one miles per hour and to be radio controlled.

Doctor W. F. Hilton, Armstrong Whitworth’s chief aerodynamist, when giving a lecture to the British Interplanetary Society at Birmingham (1952-3 session), on the difficulties of bringing a returning space ship down to earth, said: ‘That a space ship returning from an interplanetary flight would enter the earth’s upper atmosphere at a speed equivalent to a

Mach No. of 35 and would be burned up in a few minutes in those conditions'. One method to overcome this is for the craft to approach the earth at an angle, thereby skimming the upper atmosphere. In such a contact it would pick up all the heat it could withstand and then fly off into outer

space to radiate this heat away. If while the ship was in the atmosphere aerodynamic control was used, the course could be turned into an ellipse, which would graze the atmosphere on its two long sides, i.e. the ship would be making an elliptical orbit round the earth. Doctor Hilton estimated that such an ellipse would be covered every four hours of which two minutes would be spent in the atmosphere. As speed was reduced in this manner, each successive ellipse would become smaller and when the speed was down to a Mach number of about five, the course could again be changed for landing. Doctor Hilton has investigated the best possible shape for a space ship to be operated in this way, which would have as small a surface area as possible to minimise heating, but as large a drag as possible for effective braking. He found that a disc flown at an angle of between twenty and thirty degrees gave the best result. This type of vehicle, being slightly unstable, could be easily stabilised by rotating it round an axis normal to itself. Although the shock waves set up would deflect away from the ship some of the heat generated, the planing surface would still undergo considerable heating and therefore interleaved sheets

of steel and asbestos might prove a suitable method of construction.

Now we do not suggest that the recent revival of the so-called circular wing is any more than coincidental with saucer phenomena; the aerodynamists' findings cannot be questioned, but we cannot afford to overlook the fact that among those who accept the interplanetary flying saucer hypothesis are those who still consider the craft to be aerodynamic in nature. Neither are they to be blamed for so doing: after all, it is a very natural assumption to make, but nevertheless it is a very narrow one, as a close investigation of saucer sightings will indicate.

Whilst it is true that the disc offers reasonably good aerodynamic qualities, the same cannot be said for the flying saucer. Generally the shape is far from streamlined and a

close study of its cross-section reveals nothing in the way of an aerodynamic shape.

Having briefly considered the aerodynamics of the disc, let us analyse the main features offered by various reports. We may find that there is reason to consider the flying saucer as something other than aerodynamic.

5 Analysis of the Flying Saucer

SOMEONE once said that in order to know what goes on in a factory we should study the outside, and this may be true of the flying saucer. In the same way we may be able to form an impression of its internals. Although perhaps not an accurate impression, it may help us in formulating a theory. Many varying features of these craft have been reported and therefore it will simplify our task if we keep to the more common type of saucer phenomena. Here then are the facts, which having been confirmed and cross-checked, we need not hesitate in accepting, for to do so would only hinder us in our quest.

It is common knowledge now that:

a The craft are generally of circular shape, resembling an inverted tea saucer with a small cup in the centre, hence the phrase 'flying saucer'.

b They seem to be constructed of some bluish-grey material.

c Generally they have frequently been seen to rotate about their central axis.

d Many of them have been seen glowing with a bright luminous appearance, both during the day and the night.

e They are capable of an astonishing rate of acceleration and deceleration and have the ability to be able to 'hover', 'cartwheel' on edge, or soar vertically, at will.

f On several occasions saucers have been reported to have emitted a noise. This would seem to be the exception rather than the rule.

Generally they are completely silent.

Here then are the main features of the flying disc and although at first sight they do not seem to be the result of any purposeful plan, further consideration does reveal some interesting possibilities. Let us take the features in the order in which we have dealt with them.

i It is generally assumed that the disc consists of two main parts, that of the outer shell or saucer, which seems to rotate, and the inner bulbous portion which apparently does not rotate. This in itself seems to suggest that the central portion is a cabin or control room of some sort. If that suggestion is correct, it may be that the outer section houses part or the whole of the power plant in whatever form that might be.

ii Though often metallic in appearance, the colour of which seems to be bluish-grey, they have frequently been seen flashing in the sunlight like mirrors of highly polished metal. Some have been described as being semi-transparent.

iii Saucers have been seen hovering in mid-air perfectly motionless, then they have started to rotate about their central axis before making off at their customary dash. Therefore, it would seem we cannot assume the rotation to be a necessary contribution to 'lift'. But it is quite possible that some other part or parts of the vehicle not visible externally, do in fact continue to rotate. Also it has been suggested that the rotating parts may

serve as a giant generator, to produce some kind of electro-motive force. However, later on we shall see that the rotation of the 'flying saucer' may have a far greater significance than this.

iv The luminous glow is perhaps one of the most mysterious features of the 'flying saucer'. The colour has been seen to vary from blue to green, yellow, orange and on to red, the last being the most common of their hues.

It has been suggested that the saucer is constructed of some kind of translucent metal and the glow is only the artificial 'daylight' of the occupants. There is a possible confirmation of this in the Captain Chiles case. The long cigar-shaped vehicle had a bright light like a magnesium flare shining from its cabin and this same kind of eerie light is common with the saucers. The theory may be sound, but how can we explain the other colours, where do they fit in, and, indeed, do they not present a contradiction? It would seem so, but for one significant fact. Many of the saucers glowing white, orange and red, have been seen from the ground, when the under-side of the vehicle was being observed; quite a few of those reported as having been seen from the air have presented a bluey-green appearance. One is then inclined to deduce from this that, allowing for the artificial daylight theory to be correct, the lower half of the disc is subject to changes in colour for some reason or other. A far more significant possibility, however, is that the various coloured glows are entirely external in origin, that is they may originate in the space surrounding the saucer. Perhaps even more significant is the fact that the various colour hues exhibited by these craft resemble well-known electrical phenomena seen in our own laboratories.

v If the uncanny glow is the most mysterious feature of the disc, the extraordinary rate of acceleration is the

most disconcerting, for extremely high rates of acceleration have been measured both by theodolite and radar; it is in fact one of the principal reasons for the theory which is offered in the following chapters. It has been suggested that the ability of the flying saucer to hover and climb vertically can be attributed to helicopter type vanes or rotors, but a brief reflection will show that this cannot be. How can such aerodynamic lift keep a vehicle airborne when its centre line of thrust is parallel to the earth's surface as was the case witnessed by Captain Adickes when the saucer kept pace with his aircraft, on edge, like a huge wheel in the sky?

vi It is customary for an aircraft when travelling at high velocity and low altitude to emit considerable noise and it would be a natural assumption to make that something unusual was going on if it failed to do so. We would expect to find an unusual explanation, and that is exactly the case with the flying saucer. Except on one or two occasions they have all been completely silent. Thus it follows that whatever power plant these things employ must emit frequencies above the audible range, or that they are electrical in nature or something else entirely unknown to us. It is difficult to accept that either we or anyone else could design a completely silent gas turbine, for even allowing the frequencies to be ultrasonic, there are other factors which tend to make such a suggestion impracticable. So it would seem that whatever the outer ring carries for producing 'lift', it must be different from anything with which we are familiar.

Although it is true to say that saucers are generally noiseless, they have on occasions been known to emit noise. We might in passing add that it would be

difficult indeed to imagine a ‘noisy’ mirage, or perhaps if we so wish, we may dismiss such reports as hoaxes. It is up to us to decide.

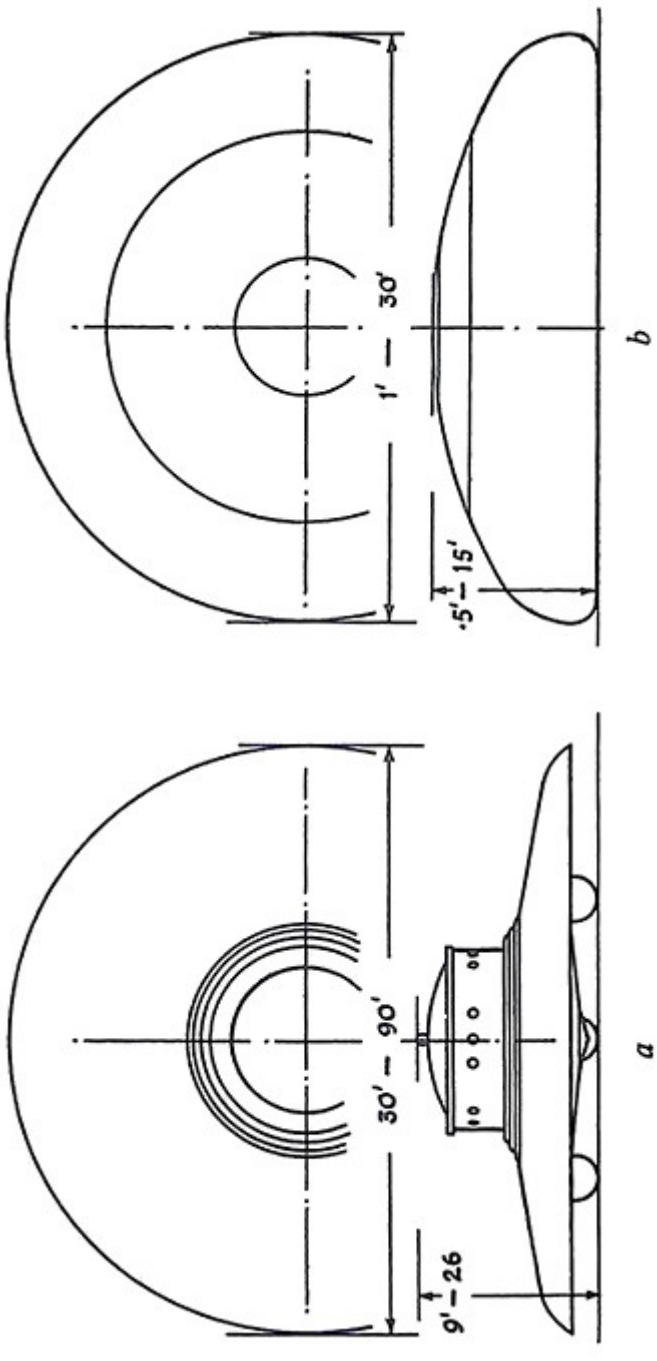

Fig. 2 (a and b)

Just such an occasion occurred at a place called Salmon Dam, Idaho, U.S.A., when a couple of miners having a refresher had their attention drawn to the sky by a strange and unfamiliar noise which very quickly developed into a healthy roar.

There was no doubt about it; sailing through the air towards them were two discs and as such they were beauties, for they shone with a flash like perfect mirrors and the shine was matched only by the startling speed with which they shot away. This would suggest that there are certain conditions under which a saucer becomes noisy; it is significant, perhaps, that when they decided so to become, they exhibit a bright luminescence akin to a mirrored surface reflecting the sun's rays on a bright day. Another not quite so acceptable theory is that some saucers have different types of power units, for various purposes.

SUMMARY OF TYPES

Having considered a brief , the following summary may be of some use, as a guide to future study. The descriptions have been taken from a good cross-section of reports ranging from the nineteenth century down to the present day. The reader is referred to the bibliography for more detailed information on the various types seen.

Fig. 2 (a) This type of disc is the most common among the sightings and although the size and shape appear to vary somewhat, it would seem that this particular type of craft serves as a scout ship.

(b) Perhaps the plainest of all the discs, this type seems to have a featureless shape, usually circular and about one-third its diameter in depth. Almost certainly ‘unmanned’, its diameter varies from twelve inches to as many feet. Its main function is probably ‘telemetering’ or ‘scanning’.

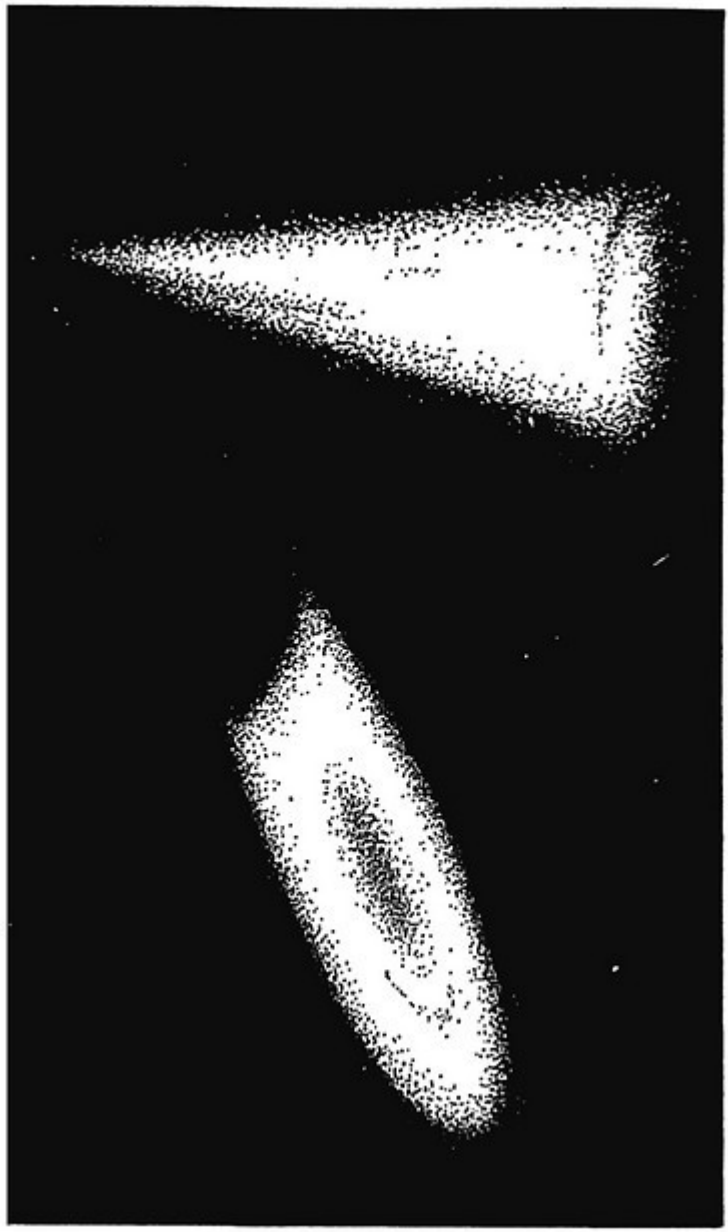

Fig. 2 (c and d)

(c) The heel shaped saucer has been seen quite frequently in various parts of the world. The suggestions that this particular

shape is an illusion, brought about by ‘fuzz’ at the stern of an ordinary saucer does not seem to be entirely correct, though the familiar ‘halo’ is seen in the centre, giving the impression that there is a ‘hole’ of some kind in the craft.

(d) The cone-shaped saucer with the fiery aspect has been described as an inverted ice-cream cone. Usually of huge proportions it seems to hang motionless in the sky like a giant torch, then it apparently fades away. It is suggested that in reality this phenomena is the visual effects of a field of force and at the top or apex of the ‘cone’ is a saucer. There is some justification for this, as on several occasions saucers have been seen leaving the area of such a ‘cone’ phenomenon.

(e) ‘Double-decked’ saucers have been seen, though not so frequently, as the ‘single’ types. The reason for this double-decked arrangement is not at all clear. It could be that it is a pair of ships coupled; closer examination has revealed that certain types seem to have the top and bottom surfaces so shaped that they might fit together, and storage problems may have necessitated this arrangement.

(f) There seems to be little doubt that the ‘flying club’ (so called because of the similarity to the playing card symbol) is in actual fact three saucers flying in close formation, virtually touching. It can be understood how such an impression is formed if three such saucers are viewed when at a great height.

(g) The cigar or torpedo shaped ‘saucer’ which is becoming nearly as familiar as the common or garden saucer is always of considerable size. This huge craft barely resembles a cigar in shape and is not streamlined in any way. There seems little doubt that its main function is

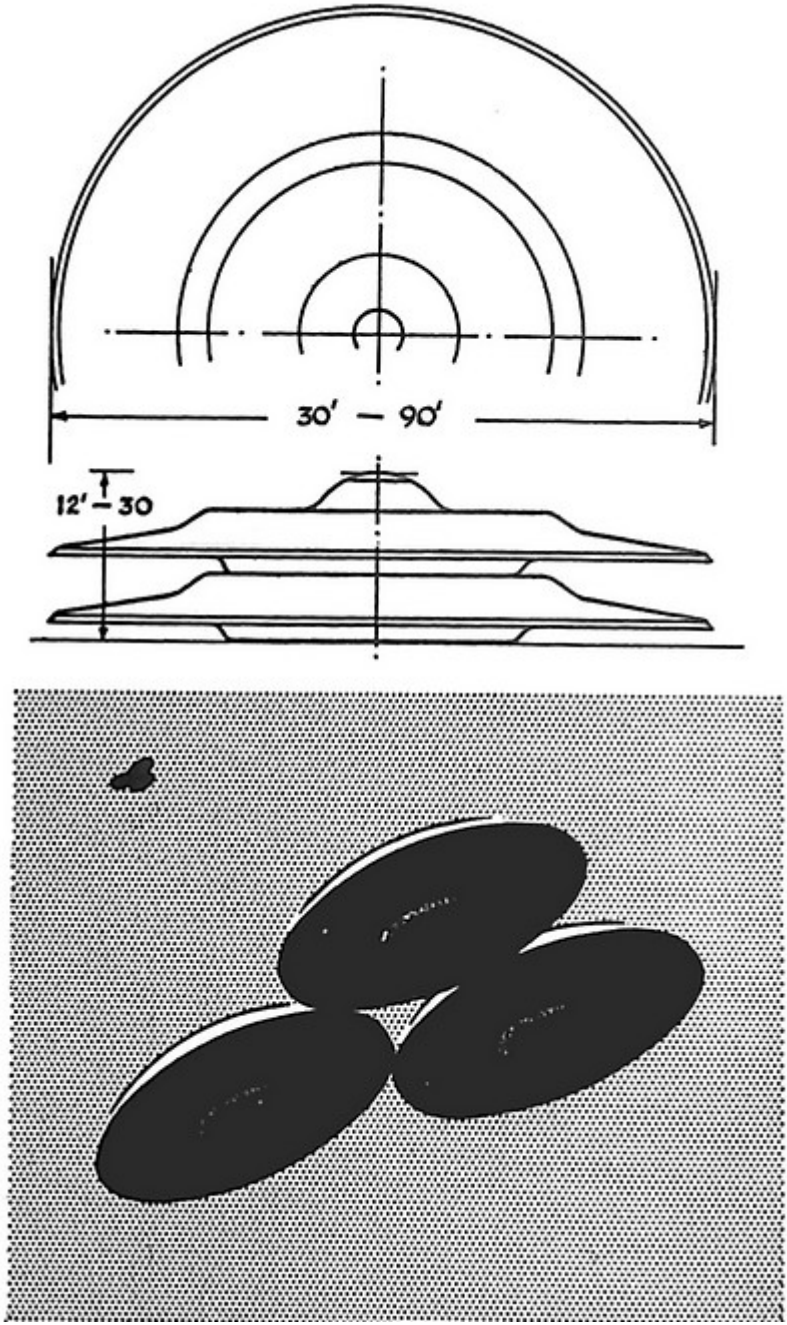

Fig. 2 (above) e (below) f

as a mother craft to the discs. The main part of the interplanetary voyage is possibly made in this huge

space carrier.

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(h) The star type ‘saucer’ is an uncommon variety; little can be said about its shape and the main function seems to be for scanning. It could be that this ship comes from a different planet from the saucers and therefore has a slightly different external shape, while its functional parts may be very similar. It is true, of course, that the same line of reasoning could be accepted for some of the other shapes, except for the fact that most of them have been seen with the cigar or parent ship.

(i) Whilst many globe type objects have been reported, there seems little reason for accepting them as anything other than disc type craft on edge; that is, presenting the top or bottom form to the observer, but it is possible that such a type does exist and may be used for heavy transport.

(j) Another uncommon visitor is the spoked wheel type saucer, usually of great dimensions and riding very high. There is an extraordinary likeness between it and the existing designs for artificial satellite or space stations. We cannot, of course, be sure that this craft performs the same functions, but no doubt it is similar in some respects.

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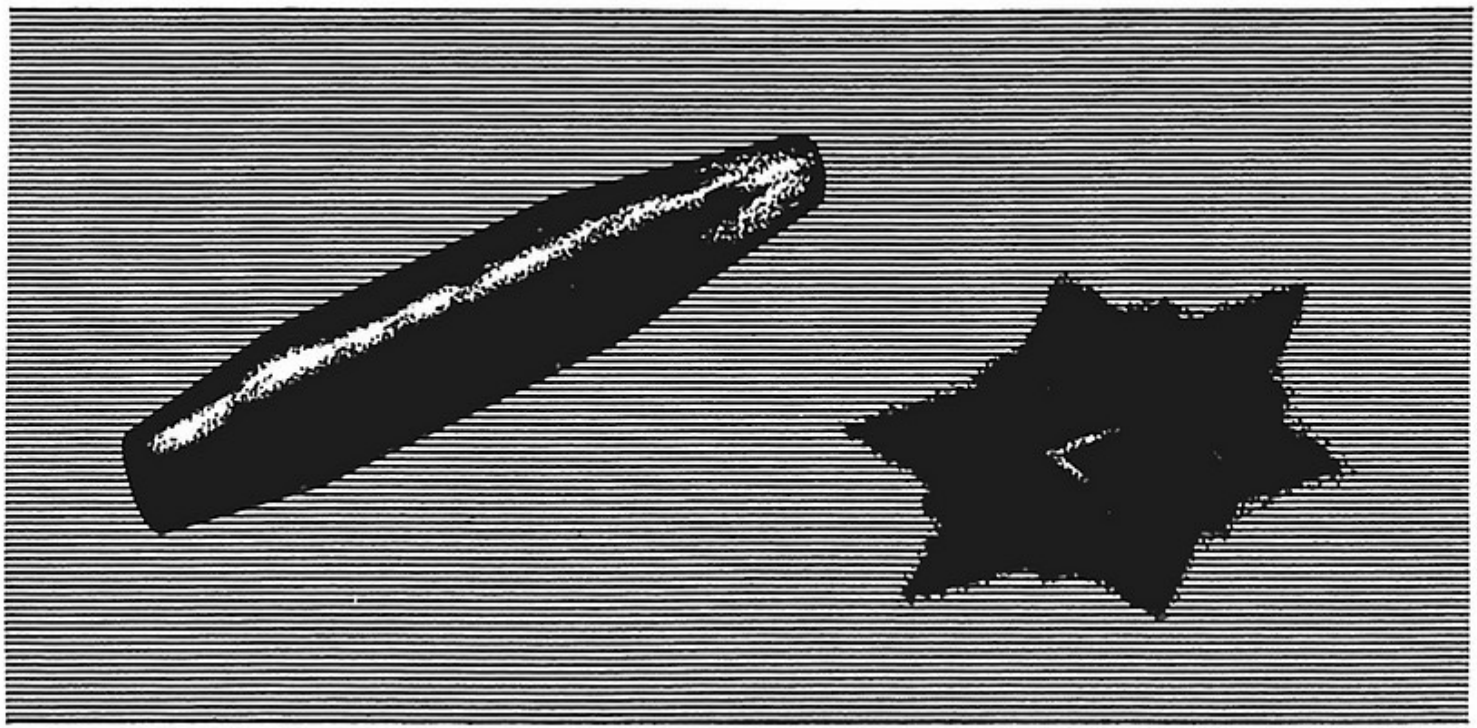


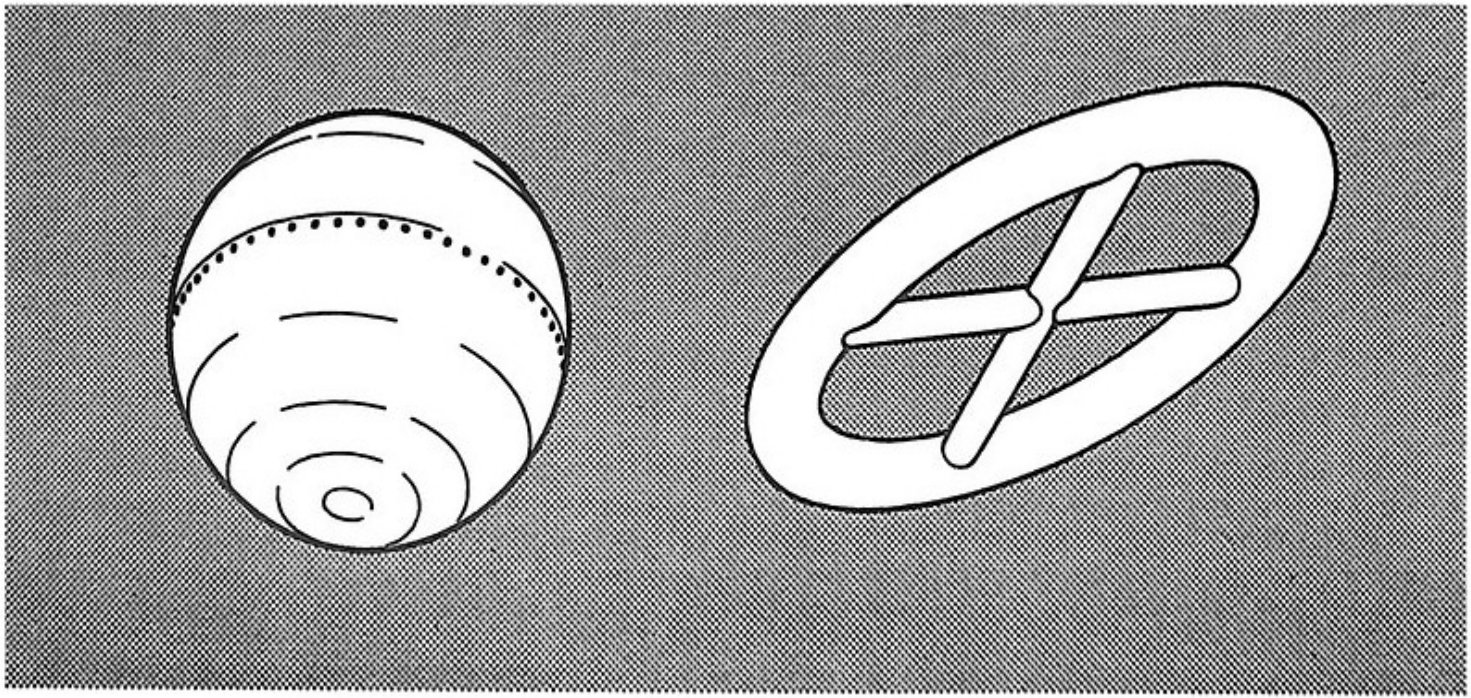
g *h*

Fig. 2 (g and h)

6 Electromagnetic Lift

WE are by no means alone in our suspicions that the flying saucer's something other than aerodynamic. Among those who accept the interplanetary solution, there is a popular theory that the craft operates by means of magnetism. It is said that a super-developed magnetic force is employed, and expressions such as 'crossing one line of magnetic force to another' are frequently used. In a way such suggestions may not be very far from the truth, for as we unfold our theory we shall see that electro-magnetism, as we know it, is but one aspect of a fully developed condition. The 'apparent' force of repulsion and attraction is a prime function in the very structure of matter, heavenly bodies obey the same 'apparent' principle, and, some think, so do flying saucers. But as we shall see, pure magnetism offers very little advantage for space ship propulsion.

At first sight a report such as the following seems to strengthen the magnetic theory, but we must remember that similar effects would be produced by almost any type of strong electrical field, known or unknown to us. On the same day that Arnold reported his experience (24th June 1947), Fred Johnson, while prospecting in the Cascade Mountains in Oregon, observed six discs in the sky, where they remained for nearly a minute. As they flashed in the bright sunlight, Johnson was able to focus his telescope on them and in doing



i *j*

Fig. 2 (i and j)

so his eye was attracted to the compass he was wearing, for the needle of the instrument was violently agitated.

The repulsion caused by electro-static and magnetic fields is a phenomenon which appears similar to that of the behaviour of the flying saucer, and the comparison would bear further investigation. The author has made a number of interesting experiments towards this end. On one occasion an aluminium milk bottle top was used as the ‘saucer’, being suspended from its centre by a thin thread the other end of which was attached to the vertical shaft of a small electric motor. When the motor was slowly started it spun the bottle top on its axis, thereby giving it gyroscopic stability. Now a large sheet of thin celluloid was electro-statically charged (by rubbing it with a cloth) and offered up to the spinning disc. Instantly the disc was ‘attracted’ to the celluloid and then ‘repelled’ by the like charge induced on its surface. The whole effect can be most amusing as well as instructive.

A more appropriate and perhaps unusual experiment is an electro-magnetic repulsion device used by the author. (*Plate* 4.) The experiment is often carried out in some schools for instructional purposes. The apparatus consists of a powerful electro-magnet through which is passed an *alternating* current. The magnet is placed on a table with its core axis vertical. A ring of aluminium (or any other conductor) is lowered on to the coil windings so that the core protrudes through the centre

of the ring. When the magnet is energised, the ring is instantly shot into the air. If the current is controlled by a resistance, the ring can be made to ‘float’. Some of the characteristics exhibited by the flying saucer can be observed. The electro-magnet hums, and the ring becomes quite hot; in fact if the current is high enough it will glow a dull red heat.

As a matter of interest to those who are not familiar with the phenomenon, a little explanation may be welcome. Briefly it is brought about by an induced current effect

identical with an ordinary transformer. That is, the alternating current supplied to the coil of the electro-magnet produces alternating electro-magnetic lines of force continually cutting the ring (or conductor) in which a current is thereby induced. This current creates a magnetic field which is always of opposite polarity to the field of the alternating electro-magnet inducing the current, hence the repulsion and the heat. As the repulsion between the electro-magnet and the conductor is mutual, one can imagine the electromagnet as the saucer, and the earth the conductor, the experiment in reverse in fact, but there are obvious limitations to this idea that render it impracticable. For if there was any lift generated at all, it would only be generated when the machine was in close proximity to the conductor. Further, the lift would always be vertically opposed to the gravitational pull of the earth, therefore it could not be employed to cause fore and aft propulsion. Then again, even if

movement could be achieved, there would still be the relative acceleration of the vehicle and the occupants, so that there would be nothing gained in that direction. The idea, however, is put forward merely as an illustration, for the earth, because of its composition and size, would not act as a conductor in which this kind of opposing electro-magnetic field might be generated. Nevertheless, for demonstration purposes, it is a very interesting experiment, and as we shall see it may be one more rung in the ladder which we have to climb.

7 Present Limitations

DESPITE the amount of available evidence in support of the interplanetary flying saucer, there still remain large numbers of people who cannot or will not accept the hypothesis. It is no small pity that amongst them we frequently find those whose knowledge would be invaluable towards throwing light on the power aspects of the craft. If those in high positions are content to ridicule the interplanetary flying saucer, can the public be blamed for following their example?

Strange craft have been sighted lazily hanging in the sky like balloons, and for this very reason authorities have classified such reports as drifting Meteorological Balloons despite the fact that the observers have been quite sure they were nothing of the kind. The attitude seems to be, ‘how can a machine devoid of rotating vanes like a helicopter just sit in the air as on a ‘sky hook’ unless it is a balloon? Surely for a body to remain up aloft it must be aerodynamic, rocket, or a “lighter-than-air” craft. We know of no other way, so who can be blamed for thus reasoning?’

The mystery could continue indefinitely, and we might never be aware of the truth of what we see in the skies. However let us pause before we dismiss the phenomena of the flying saucer and let us instead, without making hasty decisions, consider some of the strange sights that have been reported. Large bodies have been seen hurtling across the

skies at tremendous speeds, there has been no sound, not even a slip stream whine. In cases like this, there can be no small wonder we are told that we have seen a mirage. Though saucers do occasionally emit a noise, perhaps it would be more convincing if on a few more occasions saucers would forget to be quiet. As it is there is a possible explanation for this phenomenon with which we will deal later.

Sufficient at this juncture to say that it is perhaps just one of the clues these craft present to us; we will be wise to retain this point and others like it in our minds whilst examining the theory.

By far the most baffling aspect of the flying saucer is the extraordinary rate of acceleration. Accurate readings by theodolite have indicated something in the order of sixty-five times the acceleration of gravity (65 g's). Needless to say the human body (and for that matter quite a lot of other kinds of life), could not withstand that crushing force; even so, the occupants of such a machine are not the only consideration by far. There is, for instance, the structure of the machine itself, to say nothing of the instruments. It is perhaps significant that no report yet seems to have been made of a flying saucer making a 'supersonic' bang and, without doubt, more than one has been observed accelerating up to and through the sound barrier, and although mysterious explosions have been heard in the sky following the appearance of green fire balls, there is no evidence to suggest that this is anything other than the effects of a disruptive explosion.

Again, let us assume that these machines have a crew of some sort; cooling problems would be of a

high order, should the saucer suffer a rise in temperature due to excessive skin friction in our atmosphere. At first hand, there seems to be evidence to indicate that this may be so, or is the halo they frequently exhibit quite a different thing altogether?

The question arises, if the flying saucer is not an aero-

dynamic machine, what is it? How does it function; how does it obtain its lift (if any), and by what means is it propelled? To anyone who has taken the trouble to sift and analyse saucer reports, it becomes quite clear that here we have something different in the way of flying machines. Its ability to hang in mid-air; the fantastic rate of acceleration; in the majority of cases its uncanny silence; just what kind of craft is this that can move through our atmosphere at speeds which one would expect to cause it to become incandescent? Obviously to answer these questions a good deal of supposition is involved, but supposition based on observed facts and reasoning and by this means we may not be very far out in our findings.

Let us bear these facts in mind whilst making a survey of our own present researches into future space travel, the difficulties we may have to face and the conditions we must overcome in order to make such ventures possible. For by doing so, it will be apparent that many of the conditions we are trying to overcome do not exist with the saucer type of space vehicle.

One of the greatest problems facing astronauts of the future is the limitations imposed by the human

body and at the present time there is much research being done towards this end by certain people who deserve the highest praise. These scientists subject themselves to extremes of discomfort, indeed frequently they are in danger of sustaining permanent injury. When the danger is particularly great, they will not allow anyone but themselves to take the risk. Amongst these extremely courageous people are Doctors Earl Wood, Charles Code and Edward Lambert of the Mayo Clinic in Rochester, Minnesota, who frequently submit themselves to experiments for the purpose of developing the ‘G’ Suit to protect flyers during the terrific accelerations experienced in high speed turns. Particularly for these experiments, the Mayo Clinic Biophysics Department have built a giant centrifuge,

which is essentially a twenty-feet arm at the end of which men are whirled round to simulate the conditions and stresses of high speed aerial manoeuvres. By the time the ‘G’ Suit was perfected, Doctors Wood, Code and Lambert had each completed more than a thousand of these heart-rupturing rides on the centrifuge during which they sometimes lapsed into epileptic-like fits, before finally losing consciousness altogether.

‘Our greatest terror’, says Doctor Lambert, ‘was that our brains would suffer damage from the lack of blood and that we would lose our reasoning powers for ever’. In order to discover if the ‘G’ Suit itself can cause damage to the flyer under more extreme conditions,

these medical heroes are going back to the centrifuge, only this time tubes will be inserted into their veins, hearts and even into their brains to record pressure and take blood samples, even as they are whirled to unconsciousness.

It is said that in order to subject his body to extremes of deceleration, a pilot at Edwards Air Force Base, U.S.A., was strapped into a seat on wheels and propelled along a track up to one hundred and fifty miles per hour. His speed was then reduced in 0.2 seconds which brought to bear a force equivalent to thirty-five gravities; miraculously enough he did not black out, though he complained of blurred vision.

These surely are the unsung heroes; they devote their lives to the pursuit of making manned aerial flight of the future possible, simply because the more we improve the performance of an aeroplane, the faster the speeds we try to attain, the greater will be the task for the pilot, and no doubt the time will come when problems arise with which even these medical heroes will not be able to cope. These, then, are the limitations facing us, and they will present even greater problems to the rocket propelled astronaut.

It is now widely accepted that in order to enable a space ship to break away from the earth's gravitational pull, an

escape or release velocity of approximately seven miles per second must be reached, and further, using the liquid fuel rocket we have in mind to-day, this velocity must be obtained in the shortest possible time

in order to spend the fuel as efficiently as possible and get a reasonable pay load into space; but that means high rates of acceleration and there remains the limit imposed by the maximum amount of acceleration the human body can stand. Further, the nearest planets in our Solar System will be reached only after months, if not years, in space. There will be difficulty enough to get a crew into space without the extra burden of stores and equipment necessary for such a long trip even allowing for a complete regenerative system to be installed. Then there will be the necessity of perfectly timed departures and arrivals in order to synchronise the relative orbits. Getting to another planet will be an achievement, actually landing and taking off from it may well be impossible. We may have to be satisfied with a fixed orbit 'look-see' and be off home again, after perhaps years of travel and all the difficulties which that implies. Not that this is any reason to give up trying, but we might at least find another and possibly better way. At the outset all we can hope for by employing the rocket is to reach some of our nearer sister planets and that only with great difficulty, even allowing for an improved atomic rocket motor to cut down the length of the trip. Structure, crew and instruments will still be a limiting factor where high acceleration is concerned. If we pause here and reflect on the position, we may find ourselves in the same frame of mind that beings on some far off world arrived at a long time ago. In fact it becomes obvious that in order to make space flight really practicable, we have to overcome not only gravity, but the hazards of acceleration as well.

Naturally, this may seem difficult, if not impossible, to achieve, and the whole idea much too ambitious. But, if we stop to consider, it may be possible to find a way. It may be

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that in order to achieve our aims we may have to discard the liquid fuel rocket form of propulsion altogether and look for something else, some other way in which to overcome gravity, not necessarily by using kinetic energy to blast us into space. If we think along these lines and bear in mind some characteristics of the flying saucer, we may find the pieces of the jig-saw puzzle fitting together.

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8 A Fundamental Application

IT has been said that nature always demonstrates her secrets before man discovers them, and that seems to be a sound observation. When we look into nature we can very often find in duplicate a so-called man-made invention, however intricate or trivial it may be. The modern rotary wing is very nicely demonstrated by the sycamore, which employs this method for the dispersal of its seeds. The principle of the gun is employed by such growths as broom gorse, and vetch, when they shoot the seed from their pods by compressed air. Also one might say that without exception we can repeat in very simple form the principles employed in engineering science. So we get the toy balloon to demonstrate the principle of jet propulsion; a twisted piece of paper pierced by a pin will windmill like the modern turbine although perhaps extremely inefficiently. Always the fundamental principle of action and reaction can be found in every existing thing on this earth, both in simple everyday experiences and complex man-made industries. Always there is the balance of potential and kinetic energy to enable the principle of action and reaction to find its expression; there is no difference in application between the little boy paddling his canoe and the beautifully designed propellors of the *Queen Mary*. The one may be crude, the other perfection, but they both function according to Newton's Third Law of Motion.

Now can it be that nature supplies all the answers, and

does she demonstrate powers to us that we observe but do not appreciate? It is extremely likely that this is so. After all she has demonstrated most of man's mechanical applications for millions of years and early man observed them, but it usually meant little or nothing to him. Is there any reason to suppose that we have all the answers to-day? In actual fact the more man discovers, the more he realises how comparatively little he knows.

If nature exhibits all our methods of travel such as the aeroplane, the ship and even the wheel which is demonstrated to us by a boulder crashing down a slope, can we not reason that if we look for a fundamental application of a power not yet employed by us, but which we suspect is employed in the flying saucer, surely then we should find that too? But what is this power for which we are to look, and by what signs will we recognise it in nature?

Let us again consider the freak performance of the flying saucer and reason that, if such a craft can hurtle along at two thousand miles per hour and suddenly stop, there is every indication that by some means it is freed of its inertia forces or the effects of violent deceleration. That then is primarily the requirement we are looking for in nature. It is the force that sends these machines streaking into outer space seemingly without the ejection of a reaction mass, the force that enables them to hang motionless in the air, to accelerate up to

structural disrupting rates: everything points to a uniform field of force. How else can we move a body in space other than by the ejection of a mass? And so we look into nature for such a uniform field of force, and when we discover the answer we are tempted to throw it away, until we re-examine it; then we see the possibility and are a little shy of our discovery; it is perhaps too simple but it is the only one we can find in nature and it fits every observed performance of the flying saucer. The fundamental application in nature of the power we are seeking is Gravity.

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For *all* bodies are moved in a gravitational field irrespective of their composition, size, or mass, with the same uniform rate of acceleration. Neither should we allow the apparent simplicity of the suggestion to damp our enthusiasm, for what could be more simple than the lighter-than-air balloon to overcome the ‘pull’ of gravity? It works quite well despite its simplicity. Supposing the flying saucer is a different type of balloon, in fact an interplanetary balloon which obtains its ‘lift’ in a medium far less tangible than air—the so-called intangible ether.

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9 The G-Field Theory

THE expression ‘free fall’ or ‘gravity field’ is quite common to those interested in space flight, but there will be those who are not familiar with it and for their benefit an explanation will be necessary before we can proceed further. Most of us have had the experience of being caught unawares when travelling in a lift and the ‘floor’ has departed quite suddenly, giving flutters in the tummy as a result. At that instant we have been in a ‘free fall’, but it does not last long because the lift has a controlled rate of descent. If, however, the well of the lift was hundreds of miles deep and the rate of descent not controlled, we would be falling faster every second, at an acceleration of 32.2 feet per second, per second, i.e. the acceleration due to 1 g. As to whether we would have tummy flutters all the time is a debatable point; parachutists who have made delayed drops say no; in all probability there would be no discomfort at all. Now during this long drop, we would be in a continuous state of ‘free fall’ or reacting to the ‘gravitational field’ and assuming we were in vacuum so that no drag was suffered by the lift or by us, both would be accelerated at this rate and the important point is there would be no relative movement between the lift and ourselves.

Let us take the analogy one stage further. Suppose we take a small steel tray and suspend it from a high point. Inside the tray we place a small lead ball of equal mass to the tray

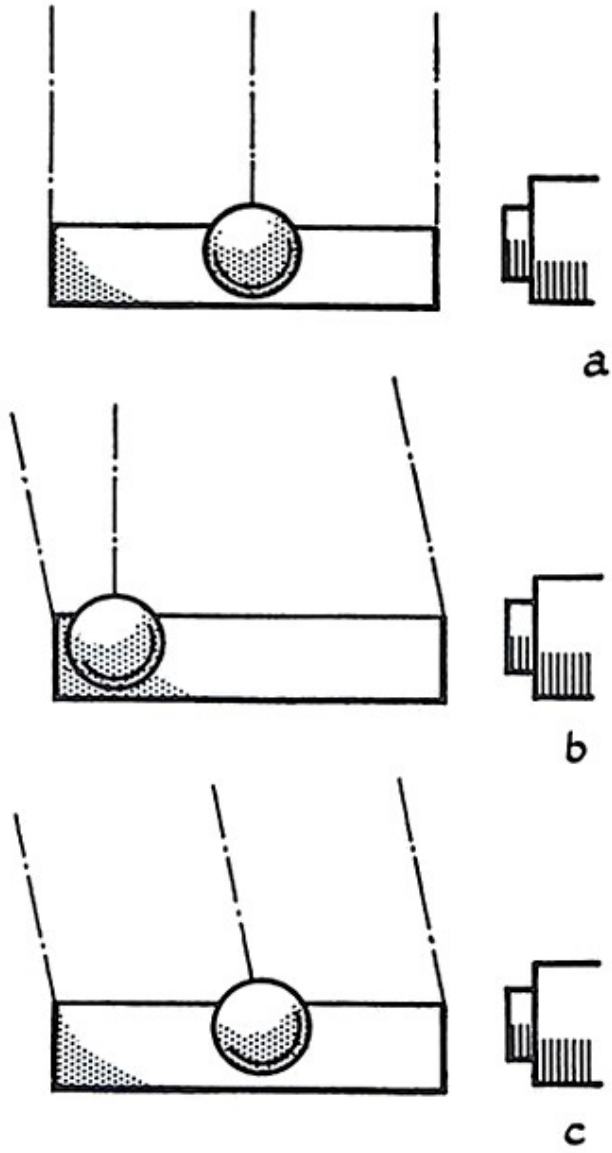

Fig. 3 (a, b and c) Movement of like and unlike substances in a magnetic field

and suspend it from the same high point so that it is just clear of the tray, as in *Fig*. 3a. At one end of the tray we place an electro-magnet which when energised will 'attract' the tray but not the lead ball. There will therefore

be a relative movement between the tray and the ball as in *Fig*. 3b.

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Should the ball have been replaced by an egg and the relative acceleration sufficiently great, the egg would probably be cracked and of course the same would apply if both the tray and the egg had uniform motion *and* the tray suddenly decelerated.

Now suppose we replace the lead ball with a steel one and repeat the experiment. This time the tray and the ball will be ‘attracted’ to the electro-magnet with a uniform acceleration and there will be no relative movement between them as in *Fig*. 3c.

This then is analagous to the falling lift, and in both cases there is a field of force acting on the objects. The main difference being that whereas the magnet will ‘attract’ only certain metallic objects, the earth’s gravitational field will ‘attract’ the lift and everything in it. Yes, even the human body and perhaps more important still is the fact that we are quite unaware of it.

A point not readily accepted by many is the fact that, were we to be placed several thousand miles from the earth’s surface (preferably wearing a Space Suit), we should fall to the earth with an increasing velocity, and what is more, should the mass of the earth be doubled, then so would our rate of acceleration increase.

It follows therefore that if by some means the mass of the earth were controllable and alternately increased and decreased, so proportionately would our rate of acceleration fluctuate. This is the whole point: we would be completely unaware of it because the earth’s gravitational field is acting on every part of our body and

space suit uniformly, every molecule and every atom at the same instant.

Now let us for the time being suppose the flying saucer is capable of creating its own gravitational field and further let this field be controllable, i.e. placed fore and aft as desired, the saucer would accelerate in that direction so long as the field was there and the acceleration would entirely depend

on the strength of the field. Now, this conception, though not wholly accurate, is most important, for in it we may have the key to the report that has puzzled experts, nay, that have made them openly sceptical; that a saucer has been seen one moment and has virtually vanished from sight the very next instant. Fantastic? Unbelievable? Of course it is; everything that has ever been or ever will be is usually incredible when we are not acquainted with it. But is it really so impossible? Not when the G-field is considered, given the power for the field, a space ship could be at rest one moment and travelling at near the speed of light the next instant and the occupants of the vehicle would be unaware that they had moved. It is the only explanation for the extraordinary acceleration exhibited by the flying saucer; it is the only way in which the occupants, instruments, and the structure itself could stand the extreme rates of acceleration involved. It offers an explanation for all the mysterious factors of the flying disc.

The potentialities of G-field propulsion make it a very attractive proposition and we are not alone in our speculations. For Arthur Clarke, Chairman of the British Interplanetary Society, has discussed it in his fine book *The Exploration of Space*.

He refers to that invention of science-fiction writers, the ‘space drive’ by which the effects of excessive accelerations on the human body are eliminated by the employment of forces that act on every atom; accelerations of 1000g would thereby leave the body weightless. Although such a ‘drive’ may appear absurd Mr Clark points out that a gravitational field produces precisely this effect, and illustrates his point by reference to accelerations in the gravitational fields of the planet Jupiter and the dwarf star Sirius B. In the former case the acceleration would be equal to that of 2½ Earth gravities, and in the latter, with surface gravity at least 20,000 times that of the Earth, the resulting acceleration would be more rapid

than a shell being fired from a gun. In neither case would a living body be subject to any strain whatsoever.

Mr Clarke speculates on the realisation of such a drive when we have acquired some knowledge of gravitation and the composition of space, and concludes by remarking on the efficacy of a controlled gravity-field drive for space travel, as near-luminary speeds could be attained after very brief accelerating periods.

Perhaps we may be permitted to add that, despite Mr Clarke’s appreciation of such means of space ship propulsion, he seems to be unimpressed by the significant similarity to G-field phenomena frequently exhibited by flying saucers.

How else can we explain the queer phenomena often observed when discs sometimes flying in close formation and at high speed have suddenly performed a perfect right-angle turn? Obviously here we have something that operates outside our knowledge of ordinary mechanics.

Let a body A (*Fig*. 4) possess velocity V in a given direction S and an

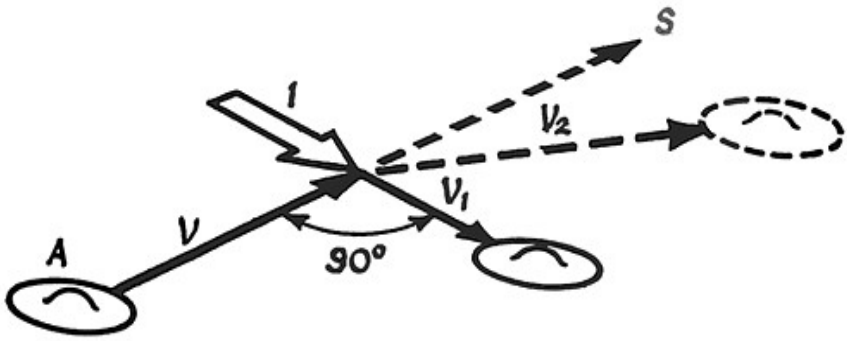

Fig. 4 Nonconformity to known mechanical laws by Flying Saucers

impulse I be applied to impart a velocity V1 at right angles to that direction. The body will then obey the triangle of velocities law; that is it will move in the direction of V2. In the above observations, however, the objects were seen

to turn at right angles which indicated that they had lost all their initial velocity in the direction S. In other words they had experienced an *infinite deceleration in that particular direction*. How else can it be explained other than by the G-field? If the flying saucer is aerodynamic, then surely this aerobatic speaks wonders for its structure.

Let us examine the stresses imposed on a pilot by centrifugal force while ‘pulling out’ of a high speed dive as in *Fig*. 5. It will be noted that three conditions have been indicated; namely that which exists before ‘pulling out’ (A),

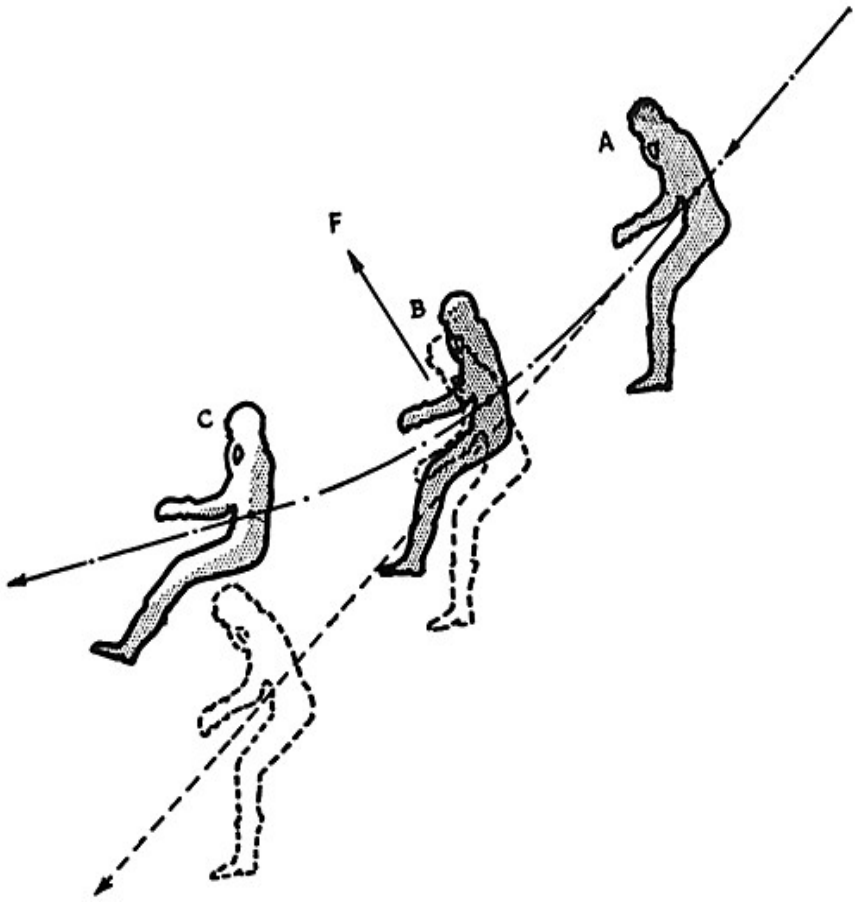

Fig. 5 Relative motion of a pilot and his blood system in a high speed curve

that half-way round the curve (B), and the condition when ‘straight and level’ has been attained (C). The radius of the curve has been greatly decreased for clarity.

According to Newton’s first law of motion, the aeroplane, pilot and his blood streams are at A in an uninterrupted line of movement; at B there is an aerodynamic force acting on the machine (Centripetal force), which results in an acceleration in the direction F. The aircraft of course conveys this acceleration to the

pilot's body which having inertia, and being relatively solid, takes up the motion of the aircraft almost instantly. On the other hand the pilot's blood being fluid is able to remain more in its original direction of motion and momentarily resists the acceleration F or one may say, that the blood is drained to its lowest point. In actual fact, of course, the reverse is the case; the blood has a tendency to stay in its original direction of motion, while the pilot's body is trying to move past it. The brain is deprived of blood, and the result is what is commonly termed a 'blackout'.

The accelerating force 'F' was *external* in origin, and the internal structure of the aircraft, the pilot, and his blood streams had this acceleration imposed on them progressively by an external force.

Should we now examine the whole thing again from a G-field point of view, the situation would be drastically different. In such a case there would be no external aerodynamic force at all: in fact under such conditions the vehicle and the pilot would receive an *internal* acceleration, so there would be no relative motion between the aeroplane and its structure, or the pilot's body and his blood stream: they would be as it were one whole and every particle and atom of matter in this whole would receive an internal or independent acceleration.

This is very important; by this means it becomes abundantly clear that a 'G' suit is unnecessary. Further, it would be correct to say that the pilot of such a craft propelled in

this manner, if entirely enclosed in his cockpit and hurled all over the sky would be completely unaware of it. He might just as well be at home in an armchair.

But it will be argued ‘if it is true that the saucer is operating in a gravitational field, isn’t it equally true to say that the crew would experience weightlessness, just as the crew of a rocket ship in a “free fall”?’ Reflection upon this point will show that the conditions would be identical, unless an arrangement were made to produce a slightly different field on the cabin and the crew.

Let us consider a saucer type ship in a field which gave it an acceleration equivalent to 100 g’s. If the ship and the crew experienced this force there would be no relative movement and the whole would be in a condition identical to ‘free fall’ and the crew would experience weightlessness, but were the cabin and therefore the crew to be subjected to a field producing 99 g’s there would be a difference of 1g between the cabin and the rest of the ship and the crew would experience normal weight.

The argument for the G-field theory can be taken one stage further when we consider the effects that high speed manoeuvres have upon delicate instruments and in order to examine what happens under such conditions the instruments also are submitted to ‘rides’ on the centrifuge, where ‘g’s’ of very high order are imposed. Mechanical units do strange things when high rates of acceleration are brought to bear. The return spring in a servo unit normally operating at three hundred pounds, may become sluggish or even fail to operate at all at a crucial moment, simply because it is suddenly burdened with another force above that which was originally intended. The difficulties involved in trying to overcome this can be imagined and the centrifuge plays a very important part in helping to solve the problem. Even so the time will come when the limit is reached; we will be able to go so far and no farther; mechanical parts will have to be duplicated

and assisted by servos, weight will go up out of proportion to power input, and lighter and more reliable methods must be sought. None of these problems would exist in a craft employing a G-field means of propulsion. Control surfaces are unnecessary in a non-aerodynamic vehicle, therefore weighty and complicated mechanisms could be omitted. It may well be that the craft at present exploring our planet do not use leverage or gear systems of any kind; all that takes place in a certain manoeuvre or change of course may be the result of a simple push button or something similar.

All the conditions of a G-field propulsion exist already. It is nothing new; we grow to respect it from childhood; we use it every day of our lives, the most accepted yet baffling secret of nature, gravity. We know it not to be just magic: it is real and it obeys real laws. When we at last understand those laws we will be able to employ gravity in any manner we need.

In all branches of science we frequently find more efficient ways of doing things. Years ago people said the aeroplane would never cross the Atlantic, a belief that was based entirely on mathematical calculation. The error of course was due to the fact that those calculations were made using the accepted efficiencies then in existence. It has been said more recently that even if another source of power exists, it will have to await the development of the colossal energy required to harness it. Here again the assumption is based entirely on our present day knowledge and it may not be true at all, as we shall see. Therefore, we will be wise to retain an open mind as we proceed further.

As a means of propulsion for space craft, the G-field method may well be the ultimate, but the effects such a principle would have on transport, engineering and

industry would be revolutionary. Complete or partial weightlessness for people with certain ailments could be produced here on earth, in our own hospitals. Engineering feats to-day

regarded as impossible would become a reality and the toll of life on the roads due to our inadequate transport systems would become a thing of the nightmarish past. Astronomers would be equipped with a G-field operated telescope in which light rays would be bent in much the same manner as our optical methods do to-day, but giving a range and magnification that is undreamt of at present. This is the dream that has probably been achieved many hundreds of earth years ago, by the beings now visiting our planet.

Perhaps the following report may serve to show one possibility of the science of the future. Head-on collisions in the air may not be fatal, the energy being dissipated in the form of pure light.

The date was 29th July 1950, the place was Springfield, Illinois, U.S.A. It was 11 p.m. when the chief pilot of the Capital Aviation Company was flying his plane when without warning there hurtled towards him a thing resembling a blue streak, with a red flame cascading from what would be its tail. At least four other people on the earth below had seen it; there was no time to swerve and the thing struck the propellor of the plane. There was no jolt and no sound. Nothing; nothing but the most concentrated flash of light the pilot had ever seen, and the thing had vanished. Later examination of the plane revealed not the slightest damage of any kind; the plane was intact, there was no evidence of scorching or burning such as static of this potential would cause.

No small wonder that the more cautious among us shake their heads at this sort of thing, while the openly sceptical types just snigger, but who can blame them? Such a report is difficult for even the most imaginative of us to accept. In every branch of scientific research and discovery, men the world over have been laughed at for believing in something far less ridiculous. But the implication is simply this, that given complete control over the atomic structure of a vehicle

in a G-field, even a head-on collision could be avoided. No doubt this is a naturally difficult thing to accept, two solid bodies meeting head on and no damage to either. No! It just cannot be done; but when we reflect that the atom itself is ninety-nine per cent space and therefore this page upon which I am writing is also an equally empty void despite its apparent solidity, is it so very impossible? Let us demonstrate the comparative ‘emptiness’ of the atom by an analagous representation in the form of a model. For our atom model we will substitute the electron by a small lead weight secured to the end of a piece of string. If we now whirl the weight round in an ‘orbit’ our hand represents the atom nucleus. If we wish we could of course whirl another such weight into an orbit with its axis at right angles to the first weight, that is if we could superimpose another hand or nucleus. Therefore in order to proceed we will have to assume the string to be substituted by a force akin to gravity. It follows that if we have two such models in space and they are set hurtling towards each other there will only be a collision if two or more of the little weights touch, but should we have control of the plane of the orbits, we would be able to ensure that the weights did not touch, so that the models

would, as it were, pass through each other. Indeed, were there to be many such little weights whirling, each with its orbit synchronised with the others to avoid collision, we would receive an impression of two ‘spheres’. Were the orbits of one ‘sphere’ to be synchronised with the frequencies of the other at the precise moment that they were brought together it would appear that the two apparently solid ‘spheres’ passed through each other rather than were in collision.

At best this is a somewhat crude analogy to demonstrate the comparative emptiness of the atom; in actual fact there is the electrical repulsions of the electrons themselves to be considered as they approach each other. But let us be open-minded and accept the theory for the time being and see if

the rest of the jig-saw puzzle fits together. Earlier we mentioned the apparent absence of noise associated with the discs and the fact that the outer skin of a body accelerating through the earth’s atmosphere to speeds around Mach 5 would receive a considerable rise in temperature due to friction. Then again the absence of the supersonic ‘boom’, a ‘boom’ already taken for granted with high speed aircraft.

Now consider a body in space moving towards the earth by its own G-field (while assuming the earth’s gravitational effect to be neutralised). As the body begins to graze the outer tenuous layers of our atmosphere, the particles nearest to the body will be affected by the G-field and therefore move along with the body itself; in other words, the body never actually makes contact with the air which is continually being moved along by the gravitational effect. The result will be the absence of

friction, no drag and therefore very little noise. At very high velocities, this moving belt of air would in turn impart movement through friction to the air particle outside the effective area of the G-field and there would be air disturbance and therefore noise, but considering that the velocity of these particles would become less the farther out they reached, the noise would be greatly ‘cushioned’ and for that matter probably inaudible from the earth’s surface, though it is quite possible that a low ‘flying’ saucer would emit a noise of some kind; indeed this seems to have been the case in quite a few instances.

There are few of us unable to appreciate the significance of this one aspect of the G-field theory. To a certain degree it would mean throwing overboard all that we have learned about aerodynamics, no more drag troubles, no more supersonic shock waves: it would mean an end to overheating of external parts at high Mach numbers and all the other headaches suffered by the aerodynamist. Yet, would he be pleased by such a discovery? Naturally not, because at first it looks as if he would have to hand over his job to the physicist.

The best thing would be for the two to work together on the new developments so as to make the change-over a gradual and orderly affair.

Astronomers have calculated the chances of meteoric collision with a body in outer space and apparently these chances are pretty small, but here again the G-field renders such a possibility non-existent. Surely a very desirable feature from the astronaut’s point of view.

The question has been put to the author: ‘If all solid bodies such as meteorites and gas particles are possibly deviated from the path of a saucer type space vehicle,

would not the resulting force field destroy or nullify radar echoes?' The solution of course lies in the simple observation that, if the above were true, all radar would be rendered useless by the existence of the earth's own gravitational field.

That the effective zone of a G-field can be powerful, if not destructive, is confirmed by the following two cases, one of which is unfortunately tragic.

The first occurred at Twin Falls, Idaho, where a disc was seen by two observers, who said that it was blue in colour and not very low down. As saucer reports go, there was nothing unusual about this save for the fact that the tree tops immediately beneath it were bending and writhing about. Despite the energy that would be required to produce such an effect, there was no noise. Nothing; just a plain old-fashioned saucer, and the trees doing a dance beneath it.

Another indication of the G-field theory was the tragic death of Captain Mantell of the U.S. Air Force, whose aircraft disintegrated while pursuing what was perhaps the largest of all the observed flying saucers. Various explanations have been offered, including the suggestion that Captain Mantell was in fact chasing the planet Venus! One of the latest explanations to be offered is by Doctor Menzel, who thinks that the apparent object was nothing but a mirage. Such theories are not satisfactory. Experienced pilots do not

make such mistakes and this thing certainly looked real to them. But even allowing for misinterpretation of the phenomena, there are still many unexplained features of the case.

It was getting on for three in the afternoon on the 7th January 1948, when a huge object shining brightly was observed travelling through the sky at very high velocity. As it happened it was travelling towards the big Air Force Fields, the Goodman Base. Earlier at two-thirty p.m. the State police had given the warning. Hundreds of people had seen the thing and the Air Force was at the ready. The commanding officer, Colonel Hix, had three fighter planes up and climbing to meet the ‘intruder’.

Through a gap in the clouds the control tower personnel observed the object through binoculars. If the reports had said the thing was large it was no exaggeration; it was colossal. It must have been at least, to quote a conservative estimate, five hundred feet in diameter. Captain Mantell, leading the group of fighters, was in communication with the control tower. He confirmed that it was of fantastic size and certainly looked metallic. By now the thing was climbing with only half the speed of the pursuing aircraft. As they closed in, the object increased its speed of ascent to something like four hundred miles per hour as if trying to evade them. When the control tower heard from the aircraft again Mantell’s companions had lost contact and had last seen him following the thing through a cloud gap. Eventually when Mantell came through at a quarter past three, he still had the thing in sight and was following it up to try for a better view; he would do so up to twenty thousand feet.

Whether or not Captain Mantell got that better view we cannot say. His aircraft, or the debris from it, was scattered over a very large area. Neither can we be certain just how the Captain met his death. That he may have blacked out is the most accepted explanation, but it does not explain

why the aircraft disintegrated. If we accept that the object he followed was a flying saucer, are we to assume that Captain Mantell was attacked, remembering that if the thing had so desired it could have possibly out-flown him? Or did his plane in actual fact fly into the effective zone of that huge disc's gravitational field? We don't really know, but there was another significant touch to that sad occasion. The wreckage of Captain Mantell's machine fell over a very wide area and rumour has it that on examination of the parts rather inexplicable serrations were discovered, very tiny and accompanied by very small holes.

No, this was not just a case of structural failure in the ordinary sense; it was perhaps molecular failure due to a breakdown of natural cohesion brought about by the intrusion on the fringes of a field of force far beyond our imagination. Perhaps we may continue with our theory a stage further. There is a marked similarity between the case of Captain Mantell and Sergeant Desverges of the Marines, who became unconscious when a 'ball of fire came towards him'. Note that he was slightly scorched and his clothing was pitted with the same tiny holes.

Perhaps the potentialities of the G-field is most strikingly demonstrated by the extraordinary experience of a U.S.A, pilot while flying his aircraft when he observed a silver disc following his plane. Immediately prior to this observation he had noticed that his A.S.I. gave a reading of one hundred and eighty 'm.p.h.', altimeter and other instruments were functioning normally. After sighting the object, however, he was aware of a very queer sensation. He got the impression that in fact he was no longer moving and on making a quick check of his instruments, was amazed to find them all at a zero reading. The motor had ceased to run; there

was no slipstream, and in fact he was completely immobilised in mid air. This strange condition prevailed for a few seconds when quite suddenly all was normal again. During the

experience there had been a complete absence of deceleration and acceleration. The silver disc suddenly seemed to lose interest and vanished at an amazing speed. We of course have no proof that all this was not an hallucination on the part of the pilot, but we cannot afford to ignore the marked similarity demonstrated in other cases. However fantastic this may appear to us, it does become possible when we consider the G-field theory of propulsion.

Let us search further for clues to justify the theory. Can we find any more to strengthen our case? The answer is, most certainly. In fact one might say that the evidence for the G-field is overwhelming, when we consider that most of these reports came from all quarters, from ordinary folks, many without scientific knowledge of any kind whatsoever. It may be argued that many of them can be just fairy tales, yet how strange it is that so many descriptions can be fitted in with the theory? Here I would like to quote some further incidents to call attention, once again, to the similarity between the various sightings:

19th February 1950. *Los Angeles Herald Express*.

Flying Saucer disintegrates into Sparks.

Copenhagen, Denmark, February 18th. Christian Sandersen, farmer, and his wife said they saw two flying saucers. One saucer passed over the roof of the farmhouse and the other landed in the yard and in less than a minute disintegrated into thousands of flowing sparks. The saucer had a light shining through its apparently transparent bottom and ‘flew a red ribbon’.

United Press Report from Seattle, Washington, 29th April 1950.

Thirty employees of one of the city light sub-stations all declared that they saw a double deck 'balloon' moving majestically through the sky. While they watched, as it was sailing over south Seattle, it exploded. They informed

the police. The eye witnesses indicated the area where they were sure they had seen fragments of the 'ship' coming down, settling towards the earth. The police, with firemen to aid them, searched the whole of the area. Not a vestige of anything odd or of anything which could have been exploded was to be found.

When we consider the first case, it would not seem unnatural to visualise something like a *short circuit* taking place. It does not necessarily mean, as some have suggested, that this was a crash. The type of craft seen by Christian Sandersen may be 'expendable', its mate having gone on further out of sight before it, too, met its end in disintegration.

In both the above cases nothing has been left to give us a shred of information; there could be several reasons for this. Perhaps the owners of the craft did not consider us worthy of such information, perhaps they realise that given one of these 'toys' we would play around with it out of curiosity and blow ourselves to pieces. It may be that because of consideration for us, they do not wish us to be contaminated by alien bacteria brought from a foreign planet. We do not know, but at least we can satisfy ourselves with several good reasons for their behaving in this way. Certainly when that saucer touched terra firma there was a fantastic display of energy, but where we may ask was that energy stored? In the saucer or in the earth itself? Analagous to a bird alighting on and thereby shorting a pair of high tension wires? Can we link any of

this to the Twin Falls, Idaho, case, when the two observers spotted those trees writhing about ‘as if in trouble’ immediately beneath the saucer, despite the fact that they were not very close to it? Can we stretch our imagination a little and without any involved mathematics try to visualise what our senses tell us might happen; the disc getting lower and the agitation of the trees becoming more

violent until there is a condition akin to the worst of hurricanes in that particular spot, and suddenly that same flash of brilliant incandescence, followed by ‘thousands of flowing sparks’. This is, admittedly, pure supposition, but not, I think, an unreasonable one. Our comparisons, in any case, will be drawn on the basis of this supposition. Have we now any clues as to the type of energy employed by the flying saucers. Are their characteristics completely strange to us or is there something familiar about them. A comparison between the Amarillo case when David Lightfood claimed to have been burned when he touched a small disc and that of the following incident may help to throw some light on our problem.

22nd April 1950. *Los Angeles Daily News*.

Man chased by Flying Saucer Showering Sparks.

Lufkin, Texas, April 22nd (UP). Jack Robertson, 28, a pharmacist graduated from the University of Texas, was motoring along Highway 94 west of town. He felt something following him. He stopped and got out of his car. An object approached, hovered two hundred feet over him, turned a fifty degree angle and speeded off, dropping sparks as it climbed. It whirled like a flying saucer. Five minutes later his face started burning. His experience changed his views about the non-existence of flying saucers, Air Force or no Air Force.

In such cases as this, it would seem that there is evidence of powerful radiation of some kind. But we must not be hasty to assume that the radiations are caused by the power unit which generates the G-field itself. In fact, it seems that the generation of such a field in an existing gravitational field may produce just this effect.

Even so, it is quite possible that a highly developed form of atomic energy is employed by the flying saucer, though

surprisingly enough it may require relatively little energy to move it, as we shall see later on.

So far, then, several interesting observations have been made, and although there is no irrefutable proof of the existence of the G-field type of phenomena, the signs are unquestionably there.

(1) Solid bodies are moved or ‘repelled’ by a ‘force’ surrounding the craft.

(2) There is the suggestion of an extremely high energy short, resulting in complete volatilization, when a saucer has come in contact with the earth.

(3) The whole structure of the disc is frequently seen to be either ‘flashing like a highly polished mirror’, ‘glowing with a self-luminosity as a miniature sun’, or just plain ‘blue-grey metallic looking’, all of which very strongly suggests that some sort of change takes place, either in the structure of the material itself, or in the space surrounding it, or both.

These three facts have been drawn from reports lodged by ordinary people, reports that some are inclined to reject, yet were we successfully to build a vehicle employing a G-field type of propulsion, these same three facts would probably be observed in the resulting phenomenon.

The reader may well ask ‘Is there any known method by which such a field can be generated, and indeed has

any research work been carried out to this end?'

Yes, much work is being done, and there are comparatively inefficient methods being investigated which show promise, but success will only be achieved when we know more of the nature of gravity, and it will be appreciated that many years of patient work lies ahead for those devoted to this task. At the moment our scientists are on the very fringe of their researches and resulting discoveries. We need have no doubt

about it; there is a power beyond our wildest dreams even in the so-called ether itself. Nor is it a question of getting something for nothing as some may think. Let us reflect, the physical universe as we know it is one vast expanse of energy. We who move in this universe cannot in any way add to or annihilate anything in it; at best we can but change the form it presents to us. Doctor Albert Einstein has said that matter is but frozen energy. Years before, Sir Oliver Lodge gave us a similar formula and to illustrate this he used an analogy. He said 'The electrons of the atom (and therefore matter itself) is but materialised ether, which was analagous to a piece of string on which a slip knot was tied, the string being the ether and the knot the electron, composed of the same yet with different characteristics'.

Now the knot on being moved along the string still 'looks' the same to us, but in actual fact is a different knot every instant. Sir Oliver Lodge apologised for the crudity of this analogy, but it is an admirable one nevertheless. The implication, of course, is that the electron on being 'changed' back into ether will disappear, matter being 'materialised' ether, or as Doctor Einstein has said, frozen energy. This is a rather startling fact but here again is the

nothing wasted, nothing lost principle, but the important point about it is if matter is returned to its ‘original’ state the forces unleashed may be infinite compared with the splitting of the atom. The rocket principle we are at present contemplating (even assuming an atomic engine) may well be the most inefficient means of space ship propulsion.

Rocket propulsion, as most of us are aware, is basically the reaction set up by the ejection of a mass. The greater the mass, and the higher its ejection velocity, the greater the reaction or thrust.

It becomes abundantly clear, therefore, that the ultimate in design and efficiency depends entirely on a given mass being ejected at the highest possible velocity. A nuclear

reaction rocket may be the means of achieving this and we could travel infinitely faster and farther with a given pay load. But greatly as the possibilities of such an achievement enhance the rocket designer’s dream, we are still shackled by inertia forces that nature has forced upon us, and the correspondingly lengthy journeys to our sister planets. For instance, let us assume that we have perfected a nuclear reaction power plant that will give a space ship a certain designed thrust over an indefinite period at the expenditure of a negligible amount of fuel. The rocket engineer’s idea of perfection has been accomplished. No longer have we to worry about weightlessness, because we can leave the earth at a comfortable rate of acceleration to the value of a constant 1g. In other words, we would be accelerating at the rate of thirty-two feet per sec. per sec. Now, we could keep this up until we were half way to our destination and then reverse the ship in the accepted manner and begin to decelerate at the same value

(1g). During the whole trip we would be just as comfortable as on earth, that is with the exception of the brief period that the ship was being reorientated. Conditions up to this point would be just the same in fact as in a revolving orbital space station. (The main difference is that in a space station the artificial gravity of 1g is produced by centrifugal force, with the result that the earth and the universe would seem to rotate around us.)

Should our destination be Mars at her nearest approach to the earth (35,000,000 miles) the maximum velocity reached at the half-way point would be approximately 1,669,000 miles per hour and the total journey would take something like forty-two hours. Using the rocket motor in its perfectly developed state this is the best that we can ever hope for. Admittedly, this would be quite good for travel in our own solar system, but for inter-stellar flight the only other alternative would be extremely high rates of acceleration over longer periods, which is not a very attractive proposition,

and even then the journey would take many years to complete. On the other hand, a space ship operating in a gravity field travelling at a *constant* velocity of 1,669,000 miles per hour with an *instantaneous* acceleration would reach Mars the same distance away, in twenty-one hours. Such speeds seem impossible at the present time, but even speeds of 16,690,000 miles per hour may be a very conservative estimate for vehicles moving along a G-field, although this latter speed is not one-fortieth of the speed of light.

Even allowing that the G-field theory may be correct, it may be asked ‘How are we to generate the enormous power required to propel a space vehicle at the speeds

suggested and how much fuel would be required? Are these difficulties not insurmountable?' They are only insurmountable if we argue from our present state of knowledge, but if we can remove our mental shackles we may come to realise there exists around us, waiting to be tapped and harnessed, an entirely new type of energy that is at the moment beyond our wildest dreams.

It is no myth, it is fact. It is ours for the taking once we recognise it and endeavour to grapple with it. It may be objected that if there is such an energy, where is the evidence? Is there one single way in which it can be demonstrated? Yes there is. In a somewhat crudely analagous way we can prove the point. We dare not accept it too literally for it would certainly lead us astray, but it may serve to show us the key with which to unlock the storehouse of the power behind gravity and thereby help us on our journeys to the stars. How soon depends on our willingness to realise the potentialities and to begin our research. For our simple demonstration we will again use a model, and we will assume the model is to be built in free space, unaffected therefore by any gravitational field.

By now most of us are familiar with the solar energy reflecting mirror, which it has been suggested will furnish an

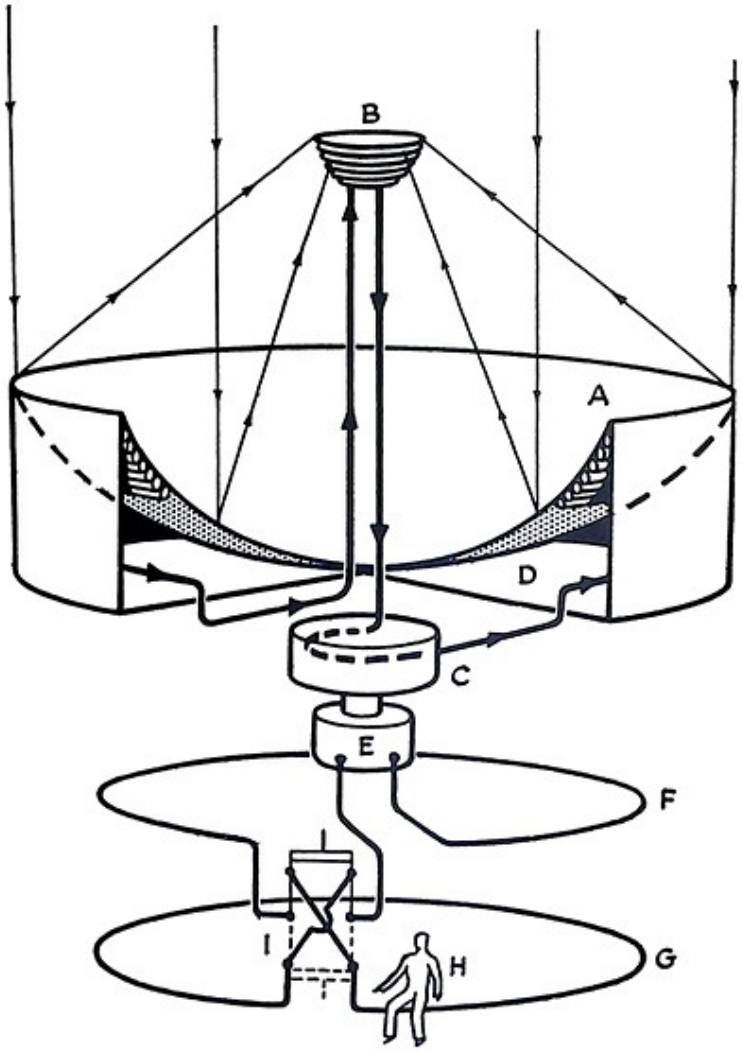

Fig. 6 Thermo-electric analogy of gravity

orbital space station with power, via a closed circuit apparatus (see *Fig*. 6), the layout of which is nothing new, with the exception of the two large electro-magnets.

Undiluted energy from the sun falls on the parabolic mirror A and is reflected to a focal point B in which is placed a boiler. Steam is generated and passed to do work in the turbine C, then back to a heat exchanger D which is

situated on the ‘dark’ or ‘cool’ side of the mirror, then finally back to the boiler to repeat the circuit indefinitely. The power absorbed by the turbine is used to drive a generator E and in this case the resulting current is supplied to the electromagnets F and G. The polarity of the resulting magnetic fields is such that an attraction is set up in the coils and it is obvious that the strength of the field is governed only by the size of the mirror; the larger the area of the mirror the greater the energy captured and the more powerful the magnetic field.

The whole crux of the matter is that this condition would exist (neglecting mechanical fatigue) for all time and would remain unchanged, analagous to gravity, coil F being the earth, coil G being a space ship, the little occupant H on coil G contributing in no way whatsoever to this condition. But if we were now to endow the occupant with intelligence and thereby put him wise to the significance of the switch I with a very *small* expenditure of energy he would be able to reverse the polarity of the electro-magnet G and together they would be hurled off into space.

Unfortunately, because of the nature of the field, he would experience a violent acceleration and would not live to tell of his experience, but do not let us lose sight of the original object in view, that of tapping a vast and unlimited source of power by the expenditure of an almost negligible amount of energy. The full importance of the fact is there in a simple comparison. No doubt the ‘saucerians’ do not use solar mirrors; they are probably past that stage; they may capture

the counterpart of the energy rays, condense them, harness and use them to generate a G-field in a way beyond our

reach at the present.

Admittedly, our subject is taking on more than a suggestion of perpetual motion, but however far-reaching that implication may be, we need not be apprehensive of the conclusion. What could be a more forceful example of perpetual motion than the mechanics of the universe itself? Indeed, at the risk of labouring the point, we might compare the situation with that of a locomotive running on a track circumnavigating the whole earth. On one side of the track is an endless canal carrying water which is supplied to the locomotive via a collector shoot. On the other side runs another canal supplying fuel oil to the locomotive. It becomes abundantly clear that apart from the fatigue of the working parts, here is perpetual motion.

In a word, we take out of the earth energy, use it and return it. We are aware of one of the most inefficient ways of doing it at present, that is all. In space it will be no different. The energy is there. All we have to do is to discover the most efficient way to harness it in order to make it serve our will.

INTERNATIONAL ASTRONAUTICAL CONGRESS
INNSBRUCK, AUGUST 1954

To the ever growing list of eminent and respected scientists who have openly declared a belief in flying saucers, can be added the name of Professor Hermann Oberth, German mathematician and early pioneer of rocket research, who is not only convinced of the existence of flying saucers, but believes that they are extra-terrestrial.

At the International Astronautical Congress (August 1954) held at Innsbruck, Germany, and attended by delegates from 14 countries, Dr Oberth said that the behaviour of the flying saucer ruled out any means of propulsion known to us, and certainly rocket propulsion. A possible explanation was the use of an ‘anti-gravity’ device.

Dr Oberth added that he did not believe the Russians, the Americans, or anyone else could have developed such a means of defeating gravity so quickly or in complete secrecy.

10 Mechanical Analogy of Gravity

SO far we have dealt only with the argument for the gravity field principle of space vehicle propulsion and it is obvious that our researches into the subject will not begin with the vehicle itself. In fact we must come right down to fundamentals and try to establish the elements of gravitational force, for only when we can begin to understand gravity will we begin to understand the principle of propulsion employed by the flying saucer. Although scientists the world over have done a great deal of work with respect to electrical and magnetic phenomena, comparatively little has been done about the ‘counterpart’, gravitation, with the exception of the work of a few led by Doctor Einstein, and of course the aerodynamist who prefers to overcome gravity by sheer brute force. But it is of interest to note that Faraday, while making an experiment discovered what might be a connection between electricity and gravity, and that he actually spent much time in an effort to produce a direct ‘lifting’ force from gravity, by a method of applying electrical energy. How far he reached in his efforts or what became of the results remains a mystery, but one thing is certain. He recognised the immense possibilities of harnessing electrical energy to produce a direct ‘lifting’ force. No doubt

there are many others devoting their energies to this end at the present time, and they deserve the encouragement that is often denied such researchers.

Outstanding among them we find a man whose remarkable courage stirs us all to admiration for, despite the fact that he is blind and unable to use even Braille, he has just succeeded in forming an entire mathematical theory of 'Dynamic AntiGravity'. He is B. Heim of Gottingen (Germany), and he believes that by harnessing electro-magnetic forces it will be possible to 'repel' a vehicle from the earth's surface.

His exceedingly mathematical paper on the subject was read at the International Astronautical Congress at Stuttgart in September 1952; lasting two hours it was described very aptly as being a 'considerable achievement'.

In the world of science it would be difficult to find a subject which could not be illustrated by an analogy of some kind or another. Can we find one to illustrate gravity? The following considerations may lead us somewhere near the truth. Apart from the fact that things appear to fall when not supported and, as Galileo's leaning Tower of Pisa experiment demonstrated, all falling bodies *in vacuo* irrespective of their mass, 'fall' to the earth with the same rate of acceleration, very little is known about gravity. It is all very well for us to say that one piece of matter has twice as many atoms in it than another, and therefore when in free space the two bodies will 'gravitate' towards each other, one with a greater acceleration than the other; but unless there is a connecting medium how can the two bodies affect each other at all? Indeed, when we stop to consider it there is only one acceleration; the acceleration relative to both bodies, there being no third body from which to measure.

Bearing these things in mind we can now construct another model for our analogy, but we must remember that it is at best only an analogy, and the mechanical ‘ether’ theory should not be accepted literally. Rather it is intended as a

stage in reasoning for those not well acquainted with the subject.

We know that gravity acts through all points from the surface to the centre of the globe, and that if there is a deep pit in the earth’s surface into which an object is ‘dropped’ it will go on ‘falling’ or rather accelerating until it reaches the bottom of the pit. Should the pit pass right through the earth, the object would reach the centre, overshoot because of its momentum, and finally come to rest, then accelerate back to the centre, and continue this subsiding oscillation in much the same as does a needle in a magnetic field.

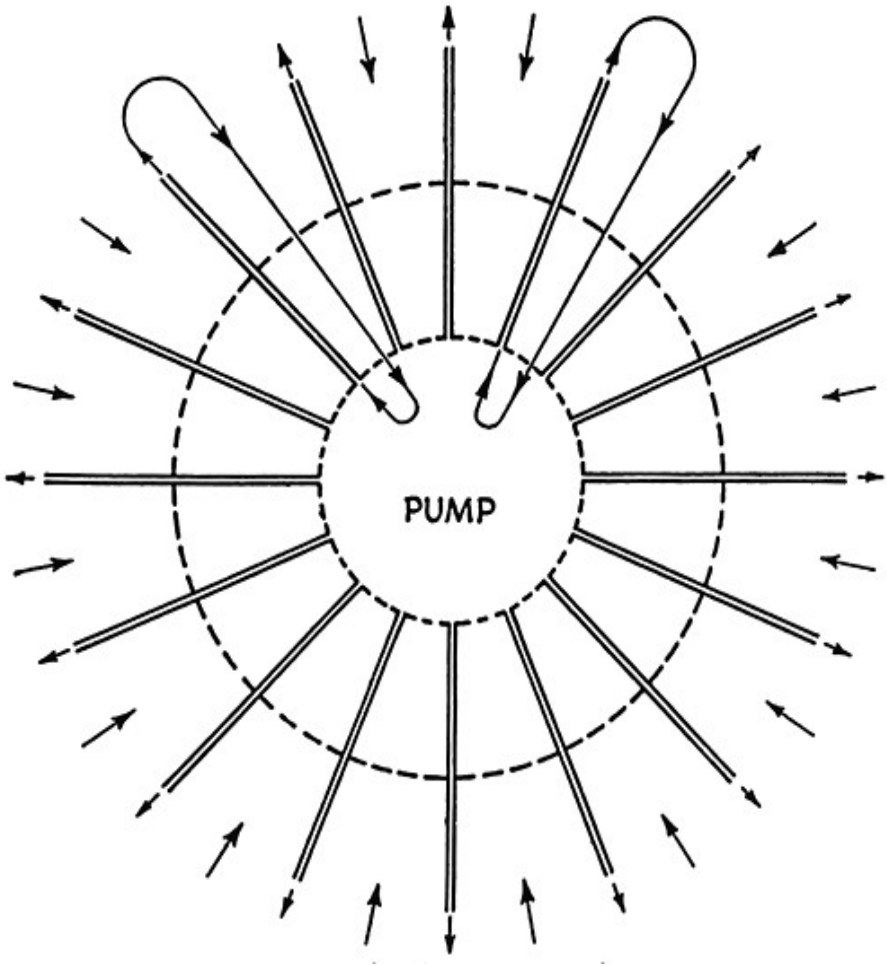

Fig. 7a Hydraulic analogy of gravity

Now let us make a working model to suit these conditions, with the exception of the oscillation just mentioned. We commence by constructing a sphere of some perforated material in which is placed a suction pump. (*Fig*. 7a.) The whole is then immersed in water so that when the pump is started there will be an inflow of water through the perforations radially towards the centre of the sphere where the intake of the pump is

situated. Now it will be apparent that as the water particles approach the sphere there will be an increase in velocity due to the corresponding decrease in area; what is more, this increase will be uniform around the sphere.

If we now place a small object such as a half-submerged piece of wood in the surrounding water, it will move with the ‘stream’ as it were towards the surface of the sphere with ever increasing velocity until it either becomes ‘wedged’ on the surface or ‘falls’ through a hole. (*Fig*. 7b.) Further, if we now

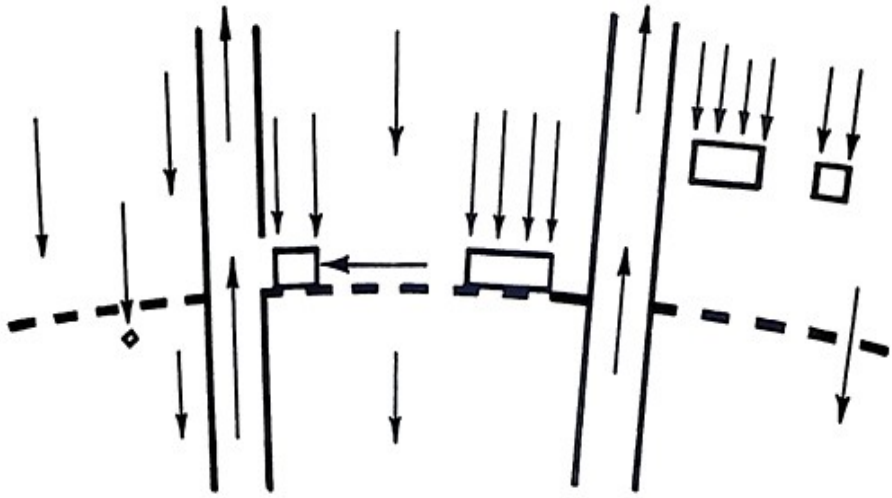

Fig. 7b Hydraulic analogy of gravity

repeat the experiment, but this time have two such small objects, one being twice the area of the other, we will find that despite the fact that there is a difference in mass, and therefore inertia, both particles will arrive at the surface of

the sphere at the same time. The reason for this is, of course, that the largest piece of wood is in contact with a greater area of moving water. In fact, we can see the same thing happening anywhere in a small stream. We can now repeat the experiment many times and the result will always be the same; some larger pieces unable to pass through the holes will ‘stick’ to the surface in much the same way as we appear to be stuck to the surface of the earth. The smaller pieces will tumble through (or down) the little holes towards the centre.

Should we take two such spheres and immerse them in the water side by side and allow them to be free to move, they would appear to attract each other just as there is an apparent attraction between the heavenly bodies. We know, of course, that the objects and the spheres are not attracting each other at all; they are being moved by the surrounding water pressure. So far the analogy holds good, but where do we go from this point? Can the analogy help us any further? Can we not assume that there is another half to the story of gravity and that in effect it may be similar to the other half of our working model, the pump?

When making the spheres we placed a pump in the centre to suck water inwards through the perforations, and presumably it would have to have an outlet somewhere; this could have been in the fashion of one big tube or many small ones as in the diagram *Fig*. 7a, fanning out radially from the sphere at many points. The effect would be the same.

If these tubes were of a fixed length and all were completely immersed in the water, it is quite clear that

there would be a continuous flow something along the lines of the diagram. If a fine filter were to be placed over the intake of the pump, there would be a return flow of water but no return of the small particles which ‘fell’ through the larger holes. So we have a continuous circuit of water, but only a ‘one way ticket’ for the small solid particles.

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We do not quite like this state of affairs and wish to help one of the little pieces of wood to move away from the surface of the sphere, but it is held there firmly by a comparatively strong force. There are two ways in which we can do this. We can place something under the piece of wood and push it bodily away from the sphere against the ‘pressure’. This would be a comparatively clumsy way. Or we can make a small ‘door’ in the nearest tube and give the little piece of wood a ‘return ticket’ (*Fig*. 7b), which is, of course, the easiest and by far the best way to do it.

Insofar as we have pictured small particles being attracted to a sphere, our analogy would appear to be sound, but what are we to substitute for the circulating water? If our analogy holds good we should look for something to replace the water, and into our minds comes almost the only thing of which we know, that is the intangible ether itself. Instantly we are faced with many questions. First and foremost, how does the ether affect solid bodies when it has been shown that if it exists at all it exists independently of all matter? How indeed are we to suppose that the ether has such an inward and outward flow as our model even if it did exist? It would seem that here our analogy ceases to be

of any more use to us, but for the fact there is another theory somewhat similar to the ether theory which we have not yet considered, but as the two theories are not so far removed from each other for simplicity's sake we would be wise to continue the ether theory for the time being. Let us assume then that the ether does exist and, what is more, that there is a continuous flow of it towards the centre of mass of a body. Borrowing Sir Oliver Lodge's picture of electrons being knots in the ether, let us assume these knots are continually being tied. In other words as the ether moves towards its centre of focus, we can visualise something akin to an ether pressure taking place and therefore something having to happen at the focal point. Could it be the materialisation of the ether into an

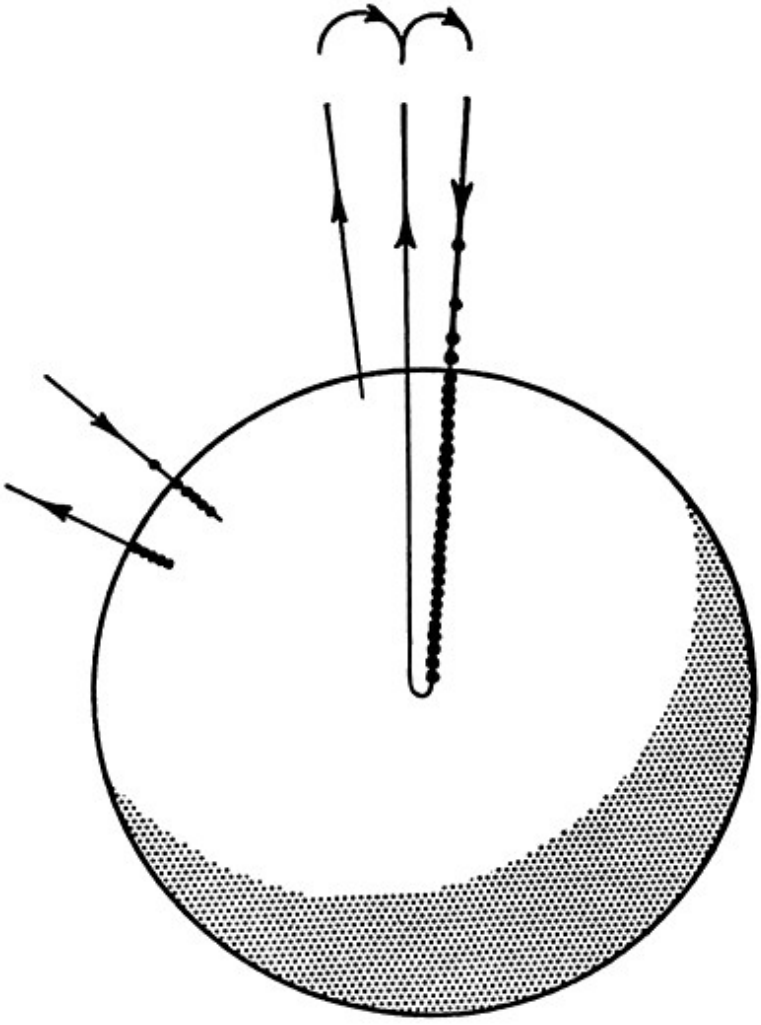

Fig. 7c Etheric conception of gravity

electron and therefore proving itself to be the very stuff out of which all matter finds existence? Perhaps, but let us continue. As this infinite sea of ether moves into its focal point, electrons are formed. They in turn become minute worlds with an inward and outward flow of ether, which to some extent may be connected with the attraction and repulsion characteristics of the atom, as we shall see later.

Now, because the electron is a knot in the ether, it is held

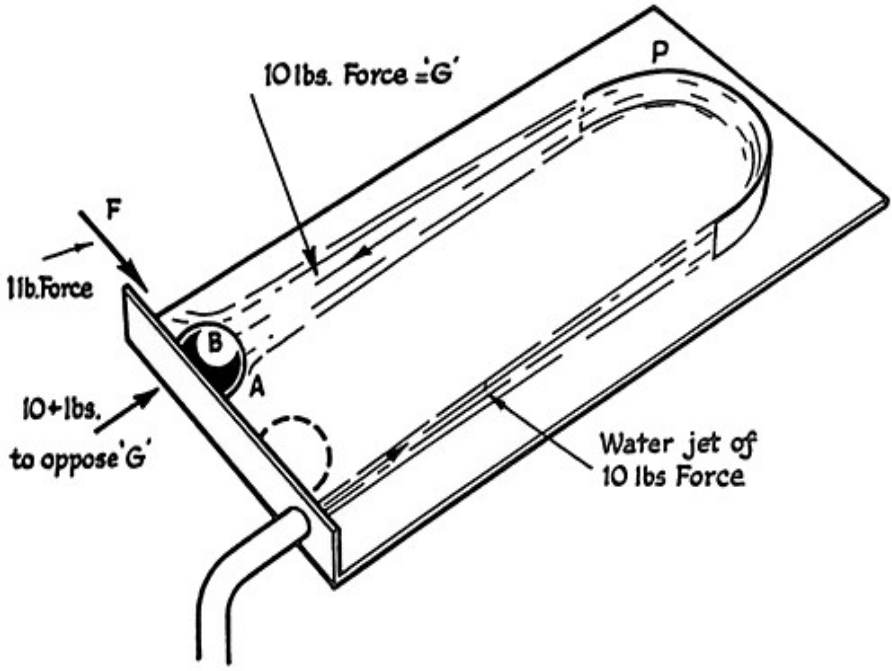

Fig. 7d Comparison of methods of overcoming 'G' represented here by a water jet

in position due to the inward flow, but nevertheless, because it is only a knot it can be moved by the application of another force and it would be paradoxically part of the ether yet independent of it.

But where does the image of the ‘return ticket’ fit in? Are we to assume that the ether has a return flow also, and where are the return tubes of our analogy with the little door through which we might pass? Let us return to the theory of the piece of string and examine the illustration *Fig*. 7c. We can see that the string is like an infinitely long loop, one side of which is approaching the earth, while the other retreats. It is, in fact, similar

to the water model, but it is in one plane only. It is clear that the knot tied in the string is held in its position by the inward flow against the preceeding layers of knots, and is thereby prevented from making the return journey by the superimposed inward flow of the next

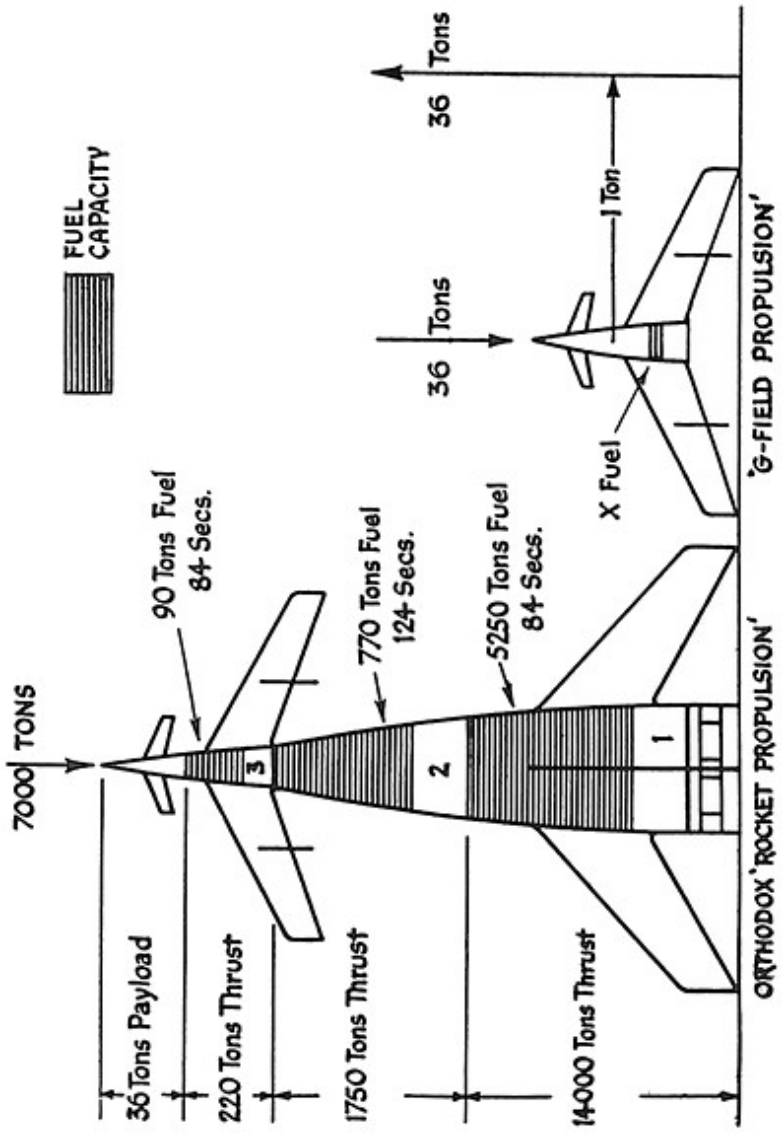

Fig. 7e Comparative fuel expenditure for a given pay-load

loop, as in the diagram. This would seem to be the limitation of the analogy, but with ether, it may be different. Remember what we said a little earlier regarding the knot being part of the ether but

independent of it. Our problem is to discover those outward passages and shift the knots into them again. It may be said that assuming such a way existed, it would take prohibitive energy to harness it, but that may not be true at all, and for us to see why, we must resort to yet another analogy. Consider a simple rig like that shown in *Fig*. 7d, all friction being neglected. A body B is at rest in the position shown; a little to one side there is a jet of water travelling in the direction of the curved plate P. It is deflected back and impinges on B, thereby forcing it against the stop with the force of, say, ten pounds. Now the kinetic energy of the fluid is the same when it strikes B and when it leaves the jet and it is apparent it will take but a comparatively small force F to move B into the jet, whereupon it will be acted on by a force of ten pounds in the reverse direction. In other words, once we are able to discover Gravity's 'other pole', it may take only a very small force to move a relatively large mass from the surface of the earth. All that will be required to 'lift' such a body is the necessary energy to move it from one 'track' to another. For the sake of comparison this energy has been translated into terms of fuel in *Fig*. 7e, where it can be compared with the expenditure of six thousand, one hundred and ten tons of fuel required to lift a payload of thirty-six tons into a fixed orbit with the use of Doctor Wernher von Braun's three-stage satellite rocket.

Undoubtedly the problem would resolve itself into a question of harnessing a certain number of units per square foot. For instance, suppose a body was acted upon by X units in the downward direction, then obviously in order to make the body 'weightless' the

same number of ‘upward’ units would have to be harnessed, each negative and positive force cancelling out; upward or downward movement will occur as

soon as an unbalanced state is brought about. Moreover, when we ‘duct’ an infinite number of these units into the body in much the same way in which lines of force pass into a magnet, an even more powerful force will act on the body. In other words, it will be in contact with an infinite number of outward flow tubes in the analogy.

It will be apparent that the theory deals mainly with ‘repulsion’ from a planet and therefore it may be felt that it is not complete, but let us proceed to a further stage.

Suppose we consider every atom in space to have such an inward flow in all planes, we can then imagine a condition akin to inertia existing, because all the ‘flow passages’ cancel or nullify each other. So if the analogy is pressed to its logical conclusion we can say that the conditions we commonly call inertia and gravity are but one and the same thing. It follows, then, that given control over the ‘flow passages’, we could unbalance the balanced condition in such a way as to cause movement, and when that condition was reached matter would move along a free ‘gravitational field’.

The preceding analogies have been deliberately simplified, in an attempt to offer the theory in as acceptable manner as possible to all those interested in this most fascinating subject of our century. The comparisons have deliberately been made basic in nature. Undoubtedly there exist many more of far

reaching significance, and we must limit ourselves to the few. But as we continue to develop the theory it will become apparent that there may be far more efficient ways of expending energy in order to lift an inanimate object from the earth's surface.

Some readers may object that my use of the ether theory is contrary to the trend of modern thought. It is true that the ether theory has long since been abandoned, but it should be remembered that I employed an ether in an analagous form and it should not be accepted literally. Carried to its logical conclusion the fundamental theory must introduce

involved and complicated speculations and that is something we have tried to avoid. There is, however, another step we may take in our speculations before we begin to enter the realms of technicality, and it may be of interest to note that whereas the author developed the theory primarily to suggest a more practical means of space travel and later when the similarity was noticed to explain the phenomenon of the flying saucer, there are others who have developed similar theories from an entirely different standpoint. The very fact that the theories are almost identical in principle surely gives us some justification for believing that there is some truth in our reasoning.

One of the most interesting of the theories that go to support my own is the 'Unity of Creation Theory' developed by Antony Avenel of Scalby, Yorkshire, who has devoted much time and thought to his subject. Naturally, his theory is extensive and far beyond the scope of this book, but I am grateful for Mr Avenel's

permission to quote a condensed version of the principle. I think there is no better way in which to endorse my own findings than by comparing them with those of a completely independent mind seeking to solve the problem in an entirely different way.

Einstein's theory of relativity and the phenomenon of 'The Lorentz Contraction', have an important bearing on the subject of this book. That part of Mr Avenel's theory, which has a bearing on my own has been condensed into the brillaint essay which forms the whole of the next chapter.

11 Unity of Creation Theory

IT gives the present author much pleasure in handing the ‘story’ over to Mr Avenel for the space of this chapter. As I have said, he has deliberately condensed his subject and perhaps it may only be fair to add that Mr Avenel’s comments on flying saucers are his own findings and were made by him long before he was approached by me on this subject. Here then is the ‘Unity of Creation Theory’ by Mr Antony Avenel.

The recent correspondence in Technical Magazines seems to show that many readers feel the need for something less coldly mathematical than Einstein’s Theory of Relativity and his subsequent theories. Few suggest that Einstein’s brilliant calculations and theories are faulty, yet by themselves those essays in pure logic are not comprehensible to the average person.

One cannot gain the ‘mental picture’ of Einstein’s Theory because the theory is not in a form which leads to a mental picture. If you read the test performance figures for a new aeroplane, you will know a lot about what the plane can do, but you will be unable to visualise whether its lines are beautiful or ungainly, or anything of its appearance.

Einstein’s Theory was before its time. The calculations of, for instance, the precise amount that a material contracts

along the direction of its movement seems to be out of place before it has been explained why the contraction occurs.

I suggest that there has been too much mathematical jigsaw puzzle making and solving, and that formulae have been put forward which, though probably correct, are by themselves without very much meaning to the intellect.

THE MICHELSON-MORLEY EXPERIMENT

This experiment aimed at finding the speed of the earth through the ether. Scientists had assigned to the ether descriptions ranging from an elastic solid to a rarefied gas. If our speed through the ether could have been determined, it would help us to understand (amongst other things) whether we are labouring through a mass like black treacle, or wafting our way through a substance as thin and delicate as perfume.

Those who rely on this experiment, or on similar experiments, make an assumption which I believe to be false, that is that the ether is a three-dimensional substance—such as gas. Only if the ether were a material substance would the passage of the earth through it cause an ether drag, or an ether wind, which could be measured.

The result of the Michelson-Morley experiment showed (apparently) that either there was no ether, or that if there was an ether the earth was not moving through it. Neither of these conclusions seemed to be probable; it would be unlikely that the earth should remain stationary in space when all other observed heavenly bodies were moving. Nor was it likely that

there was no ether, for how else could the passage of rays through space be explained?

As neither of these conclusions could be welcomed, it was later suggested that the Michelson-Morley experiment really did show a positive result, but that the measuring rod in the direction of the earth's movement through space contracted by an amount exactly sufficient to remove the positive result

from being apparent (the Lorentz Contraction). The proposition was of course that all materials contracted in the direction of travel; the supposed contraction was not confined to the measuring rod in the M. & M. experiment.

The Lorentz Contraction at first sight seems to be an artificial and far-fetched theory, yet I think that those who have studied the calculations, and those who care to do so, will agree that the contraction must be accepted as something which actually does take place.

The Theory of Unity suggests reasons why the Lorentz Contraction takes place.

THEORY OF UNITY OF CREATION

The interest shown lately in the physical world prompts me to offer an outline of that part of the theory which affects this subject. The theory suggests, among other things, why the phenomena forecast by Einstein's Theories take place. It is unsatisfying to be told that time slows when you travel through space, and even to be informed of the precise amount by which it slows compared with your velocity, before any attempt is

made to explain what time is and why it is capable of slowing.

The following statements and arguments are set out in rather a dogmatic and over-simplified form, which I hope will be excused, in order to try to offer an outline of the theory which can be followed without undue effort.

The theory anticipates the ultimate result of the fact that research discovers one unity after another in physical phenomena. One is led to expect that before long it will be proved that there is one basic building material for the whole universe. I do not pretend that there is sufficient data available at present to prove the theory fully, but there are many indications that it is an anticipation of what will be proved by, let us say, the year a.d. 2000.

The theory which I put forward is that the ether and space

are the same, and that space is formed out of nothing by a grid of extremely high frequency rays (probably having a wavelength of less than 10-^{13} cm.). Space must be distinguished from ‘nothing’. Space—even if it is empty—possesses the qualities of length, breadth, thickness and time. ‘Nothing’ has no qualities whatsoever, and cannot support any material or ray. In other words, creation of the universe takes the form of making space out of ‘nothing’, and the method adopted for making space is a network or grid of rays, which I call ‘creative rays’.

OUTSIDE THE UNIVERSE

Taking ‘the universe’ to mean all created space, there is ‘nothing’ outside the boundaries of the universe. The old problem of imagining the boundaries of the universe, outside which stretched empty space—which space must have boundaries, and what was outside that?—should not arise. ‘Endless space’ is a contradiction in terms. Space has dimensions and boundaries and cannot be endless. The hand of creation has not touched the ‘nothing’ outside the boundaries of the universe, and that ‘nothing’ has no dimensions and therefore no boundaries.

To put it in another way, space is positive creation, while ‘nothing’ is the absence of space, and thus purely negative.

You cannot visualise ‘nothing’ for obvious reasons; it has to be accepted. If anyone particularly wishes to try to relate it to human experience, it could be said that he has had more of it than he has had of space and time. It is what he experienced, or did not experience, before he was born.

Space or ether is formed by the creative rays which emanate from one source in all directions and in all planes. Each creative ray covers a circuit from source back to source, and each circuit is probably the same size. In this way space with boundaries of globular shape is built, and whatever

point is taken in space, creative rays travel in all directions towards the source.

By the word ‘source’ I do not imply that the formation of the creative rays operates in only one direction in each circuit; the action may be alternating.

LIGHT IS A MODULATION OF THE CREATIVE RAYS

All rays of whatever frequency, visible or invisible, detectable or undetectable, are modulations of the creative rays, in the same way as a high-frequency radio wave is modulated by a musical note. As a radio carrier wave can be modulated by a number of separate notes, so can the ether carry between the same two points any number of waves of differing frequencies.

It would appear that rays or modulations are always caused by a disturbance in three-dimensional material, and that they are only of consequence when they encounter other such material. When a ray travels through space it is merely a slight modulation or disturbance of the creative rays and of no importance.

MATERIAL OBJECTS

The atom is the building material for all solids, liquids, and gases, and each atom is composed of a nucleus round which revolve electrons at distances from the nucleus which vary with the type of atom. I submit that the atom is not solid fundamentally, but that it is composed of modulations of the creative rays in three planes. Although a modulation is normally a ray which travels in all directions from *its* source towards the source of the creative rays, the chord of modulations forming an atom are locked together in three planes. This lock prevents the modulations travelling in opposing directions as rays. Does not the release of atomic energy show the very close relationship between atoms and rays?

The main point which I want to make is that rays and

atoms are both modulations of the creative rays, the former being simple modulations, the latter being complex and static ones.

An atom could in some ways be compared with a ripple caused by a stick in a smoothly flowing stream of water. It remains the same in appearance yet it is formed from a constantly changing medium. If this is correct, the universe is made from the same medium throughout, and what appears to be empty space between the earth and Mars is in reality a connecting medium.

TIME

I suggest that time is the effect on our minds of the frequency of the creative rays. If the atoms out of which our brains and bodies are made are formed out of the creative rays, we cannot but be aware of the alternation of the creative rays. We cannot escape from time unless we also escape from space, or, in other words, cease to exist.

It is impossible to look either backward or forward in time from a fixed position in space. If we could travel at the speed of light and thus ‘keep up with time’ we should probably cease to be three dimensional which would not assist our observations! In any case, we should find ourselves in a different position in space, so we cannot by any means foresee what is going to happen, or look back on what has happened, on earth.

ALTERATION OF TIME

If we were to travel at a very high speed—a substantial proportion of the speed of light—the frequency of the creative rays in the direction of our travel would be increased, because we would be travelling relatively to the pulses of the creative rays. It can be envisaged that something akin to the Doppler effect would take place, with the result that our basic time would be increased in frequency. We should not be

aware of this, because the frequency of the creative rays is our only standard of time, and there is nothing *nearby* against which we can test this standard. But a stationary observer could, by rays of light, calculate the difference between our time and his time; he would say that our clock was going slow compared with his clock, or that our basic time frequency was quicker than his.

Clock time is our way of counting the number of pulses of basic time. If basic time frequency increases, clock time still counts as one million pulses what are now, say, two million, and clock time appears to be going half speed.

Some space travel enthusiasts consider that if you could travel fast enough in a space ship, you could spend twenty earth years away from our planet and come back only a year or two older than when you left. If this is calculated using basic time-space, it is found that the effect on your body, and the impression on your mind, is exactly twenty years' worth of earth time, and that you could not therefore enjoy almost perpetual youth by this very inconvenient method.

CONTRACTION OF LENGTH

If an atom moves along the creative rays, the increased frequency referred to before results in a shorter effective wavelength of the creative rays, which decreases the measurement of the atom in the direction of its travel.

For the purpose of simplicity, take it that the material length of an object is formed by the wavelength of the creative rays, while basic time is the frequency of the creative rays; then wavelength x the frequency of the creative rays will remain constant at whatever speed the object travels, because as the frequency increases the wavelength decreases. The product of the length of the object and basic time is unaffected by the velocity of the object, and it is this product which gives to our minds the impression of time and of the proportions of the object.

The creative rays present existence or the possibility of existence, and time and space are a division of that presentation. In whatever proportions the division is made, the whole remains unchanged.

RAYS AND MATERIALS ARE TEMPORARY

I would now like to meet the objection of those who say that it is just as difficult to believe that the creative rays travel through ‘nothing’ as it is to accept that light travels through space without an ether to carry it. My reply is that this theory is that the creative rays create space not casually, but permanently: their cause is not casual, like the cause of a ray. The theory proposes that rays and materials are casual and temporary modulations or disturbances of the creative rays. It

would seem unreasonable to believe that a special act of creation is necessary every time you choose to switch on an electric torch. The theory of units holds that you, by switching on the torch, are able slightly to modulate the creative rays, which are permanently present, and that the casual phenomenon of visible light is the result.

GRAVITY

It is usually accepted (to put it basically) that if in space two masses exist, they *attract* one another. I suggest that this idea is wrong, and that it is impossible for a material object to emit rays which *pull* another object. Nor is there anything other than a ray which could exert the supposed pull. Rays can exert a small amount of pressure on an object in the direction of the ray's travel, but they cannot pull.

An alternative theory is that gravity is due to an increasing velocity, and the analogy of a lift rising at constantly increasing speed is often used. If a person in this lift released a pencil, it would appear to that person to fall to the floor of the lift, and he might well consider that the pencil was attracted by the floor. If this is the explanation, why does

gravity act in more than one direction? It requires adjustments which seem to me to be very artificial to answer this.

The theory of unity explains gravity as the material version of the natural travel of a ray towards the source of the creative rays. The modulations forming an atom tend strongly to split up, to break their three-

dimensional bond, and to travel in all directions, like ordinary rays towards S.

Referring to *Fig*. 8a, S represents the source of the creative rays, while the circle represents the circuit of one creative ray. X represents the place at which an atom is formed by the intermodulation of the creative ray shown on the diagram

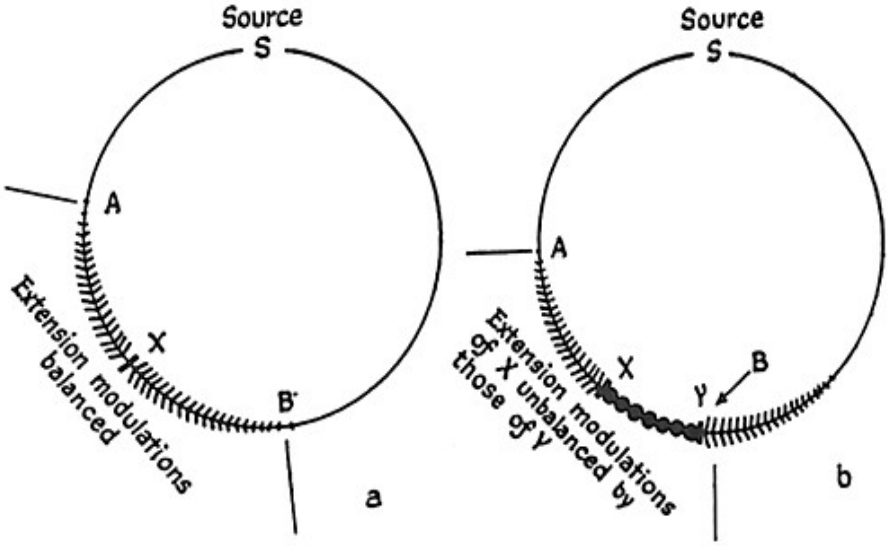

Fig. 8 Diagrams representing the source and circuit of creative rays

with the creative rays in other planes; the latter cannot clearly be represented on paper, nor of course, can an attempt be made to draw to scale.

The tendency of X to act as a ray and to travel to S via A and B, and via other planes is nullified by the three-dimensional strength of X. The modulations of the creative ray start for practical purposes at A and B, but they do not interlock with modulations in other planes until X is reached. These preliminary modulations in ray form I will call

extension modulations; some of them are of a measurable frequency, others are of a frequency too high to be measured by a material device.

So long as X is undisturbed, it remains still in space, the tendency to travel to S via A being balanced exactly by its tendency to travel to S via B. Its tendency to travel to S in other planes is also balanced. But, referring to *Fig*. 8b, if in the position Y (before the extension modulations of X have for practical purposes faded) another atom is formed, the extension modulation of X is interfered with and unbalanced between X and Y. The extension modulation of X in the direction of A is unchanged; XA and XB are now no longer balanced, and as a result X moves towards Y; Y also moves towards X, according to the laws formulated by Newton, or approximately so.

Although X moves towards Y, it is not *attracted* by Y, any more than light from the sun is attracted by the earth. (Here I am ignoring the almost negligible element of gravitation between a material object and a ray: the reason why light travels from the sun towards the earth is not because of mutual attraction between the light and the earth.) X moves towards S via Y.

MAGNETISM

I suggest that it is not possible for the north pole of a magnet to emit rays which attract the south pole of another magnet, and which repel the north pole of another magnet.

The travel of one magnet is not towards another magnet but towards S. Some atoms of iron are arranged, or can be arranged, so that the extension

modulations are not the same in all planes. This lack of symmetry can be encouraged by electrical means. It is quite possible that a single magnet removed from a powerful gravitational field would move through space of its own accord. A single magnet on or near the earth is prevented from moving by the gravitational

field of the earth—that is, it is prevented from moving through space of its own accord. If another magnet of opposite polarity or a piece of iron is placed near the first magnet there is apparent attraction, but what actually happens is akin to gravitation. The first magnet moves towards S until it reaches the second magnet or the piece of iron. The strength of the magnet probably depends on the number of atoms in the magnet which have unbalanced extension modulations, the degree of lack of symmetry in each atom remaining constant.

ELECTRICITY

I suggest that this is a general disturbance of the extension modulations.

FLYING SAUCERS

True ‘flying saucers’—that is those which are not the result of the imagination of the observer—are vehicles which are based on the principle of unbalancing the extension modulations of material carried in the vehicles.

REALITY

The question arises: ‘Are these changes in time and space real, or are they only *deemed* to happen?’

The answer to this is, I think, that what you and I and everyone else is concerned with is basic time x length representing the whole effect of both the frequency and the wavelength of the creative rays. In judging reality before our eyes, we are not concerned with the division of time x space into time and space.

If you want to listen to a concert on the radio it makes no difference to you whether the programme is carried to you by a 500-metre carrier wave or a 1,000-metre carrier wave, and you could detect no difference in the reality of the reception. You might then say that there was no real

difference; but an engineer who is more interested in the method of your hearing the programme than in the programme itself would say that one programme was the result of modulating a carrier wave of 500 metres wavelength and frequency of 600 kc/s, while the other programme was brought on a carrier wave of twice the wavelength and half the frequency. To the listener who was unable to go further into the problem than to hear what came out of his loudspeaker, the programmes would be the same.

The answer then is, shortly, that although the change does actually take place in time and space, it is not real in the sense that it could be observed by a human being living within the sphere of the change, for such a person has not the means to measure basic time or basic length as an engineer can measure the wavelength and the frequency of a radio carrier wave.

Our thanks are due to Mr Avenel for his kind permission to reprint this fine chapter, which forms a greatly condensed basis of his original theory.

It remains only for the present author to wish Mr Avenel every success in his exemplary work.

12 Inertia and Centrifugal Force

THE principal feature throughout this book is the so-called ‘force’ of gravity and closely allied to that ‘force’ is the property of inertia; indeed, as I have tried to show in an earlier chapter, the two are inseparable. If we can question the existence of the property of inertia (that is in the form accepted by the world of science), and thereby indicate that there is something akin to a higher ‘octave’ of matter in Space (or as Mr Avenel says ‘creative rays’) we will be in a more receptive frame of mind for the descriptions which are to follow.

To say that there is no such thing as the property of inertia seems to be a denial of the long accepted and proven laws: to make such a statement may amount to something like scientific blasphemy, but we must not blind ourselves to the fact that the term ‘inertia’ was simply invented for a condition we just do not understand. What is inertia? Can we handle it or buy it by the pound? Has anyone seen it? The text book tells us that it is the property which a body ‘possesses’ by which it shows a reluctance to be moved from a condition of rest, or the reluctance to be brought to rest when ‘possessing’ momentum.

Tell some physicists that there is such a thing as a higher ‘octave’ of matter and we will be received with raised eyebrows,

yet no one shows any alarm whatsoever when we say a body ‘possesses’ such an intangible thing as inertia. In

actual fact the one is just as intangible as the other. Let us reflect; in the first place a body is said to be at rest when it has no relative motion to another body, and so *ad infinitum*, but is there such a condition? Not that we know of, because we cannot point to a single body in the whole of the known universe that has no relative motion of some kind.

Consider a body in space, there being no planets, suns, nothing save the one body. It is obvious such a body can be moving only in respect to something else, but there is nothing else, so the body is not moving. Still the physicist tells us the body 'possesses' inertia. It will stay where it is unless a 'force' is brought to bear on it.

Now the body is surrounded by nothing; we will accept for the time being the modern trend of thought that there is no such thing as an ether; how then can we accept the hypothesis of a body possessing of itself a reluctance to move unless it is fixed, or part of something else? Surely we must come to realise that the surrounding space is that something else? Then it follows that if the body of matter (the term given by us to a collection of non-material 'forces' called atoms) is affected by space, then in some way that space must be composed of a higher 'octave' of matter.

Let us examine another simple analogy, for in it we may find several interesting possibilities as far as inertia is concerned.

Fig. 9a shows a plate upon which impinges two opposite and equal flowing jets of water, thereby holding the plate in a state of equilibrium. It is quite clear that the force acting on the plate is only

proportional to the mass flow of water issuing from the jets and it follows that any increase or decrease in the jet velocity will result in a greater or lesser force.

Should we try to move the plate in the direction of one of

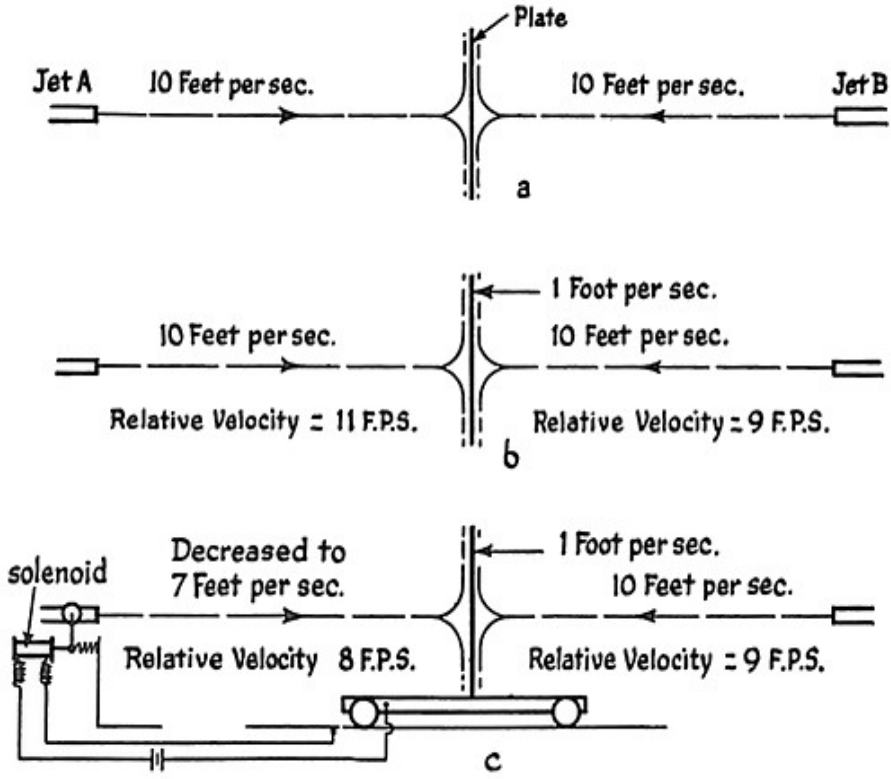

Fig. 9 Hydraulic analogy of inertia

the jets as in *Fig.* 9b, it follows that there will be a relative increase in velocity on that side and a corresponding relative decrease in velocity on the other side. Therefore the plate will experience an unbalanced pressure and will show a ‘reluctance’ to move (inertia).

But a body in space will only show a reluctance to move initially; thenceforth, it will continue to move. Therefore we must modify our analogy to accommodate this condition. We can do this by making jet A in *Fig.* 9c controllable by means of a solenoid operated cock, and the solenoid in turn controlled by an electrical contact formed between the wheels of the trolley and the rails.

Now, when we try to initiate a movement, there will still be the reluctance to move as in *Fig.* 9b, but immediately

after this stage has been reached, the wheels complete the electrical circuit and the velocity of jet A is decreased and, as will be seen, the relative velocity of jet A will still be less than the relative velocity of jet B. Therefore the plate after suffering its initial ‘inertia’ will continue to move of its own accord.

The analogy is limited and would be improved only at the risk of further complications; which in any case is unnecessary, for we are now in a position to analyse the condition of inertia in what may well be its true state. *Fig.* 10a shows a body in free space, the radial lines indicating the etheric, or as Mr Avenel calls them, creative rays in one plane.

It follows that any reluctance the body exhibits to movement is not caused by the body, nor by the rays in themselves; rather that the phenomenon is common to both, comparable with the water jet *and* the plate. As we controlled the source of the jet in order to obtain continual movement of the plate, so by modulation of the creative rays—by an applied force—we bring about

an unbalanced condition resulting in continual movement of the body (*Fig.* 10b.)

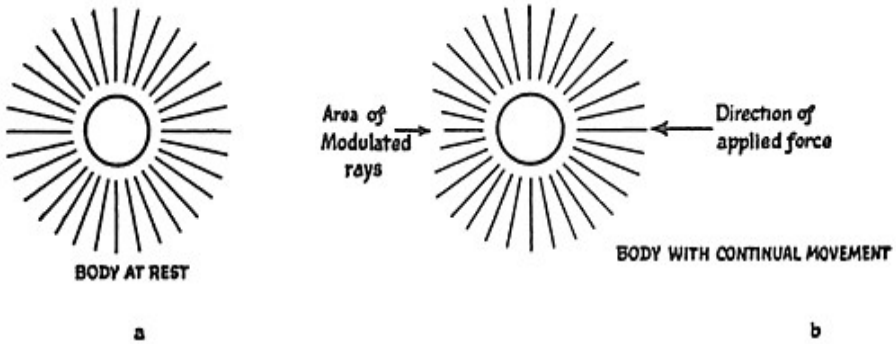

Fig. 10 Inertia is the resistance offered by the etheric rays to being modulated

We know that for a ‘given mass’ and a given applied force over a ‘given time’, a body will acquire a certain velocity. The theory suggests that this velocity is simply the result of

the degree of the unbalanced condition, and that inertia is simply the resistance set up by the rays to being modulated. The greater the applied force, the stronger the modulation, and therefore greater the resistance set up. Furthermore, it will be apparent that only those rays opposite to the applied force are modulated, therefore the body takes on a movement in the direction of that applied force, and what is equally important is the fact that the body will continue to move along the modulated rays (a straight line to our reckoning) according to Newton’s First Law. The same reasoning can be applied to all aspects of our known mechanics. Even the phenomenon of so-called centrifugal force is now made clear.

Referring to *Fig.* 11, A is a body which has previously received motion by the ‘gravitational’ or unbalancing effect

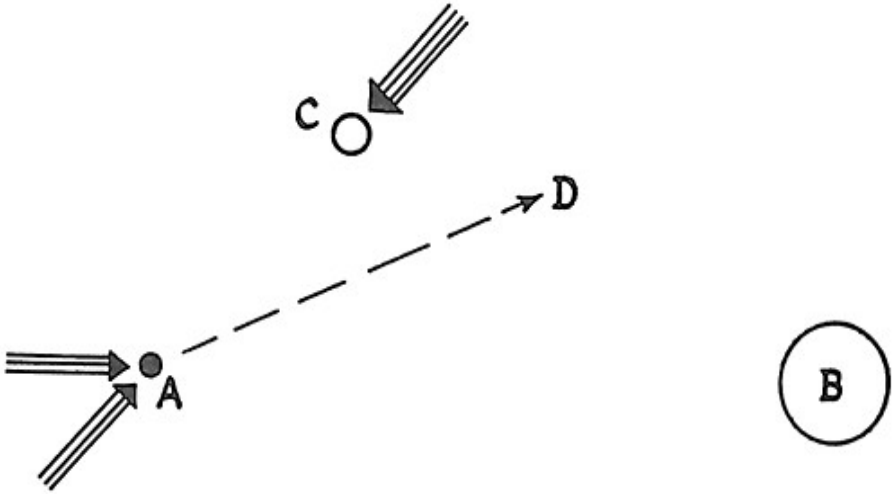

Fig. 11 Orbital motion and centrifugal force is a result of intermodulation

of B. But it will be observed that there will be disturbance and therefore a corresponding unbalancing with respect to C. The result of an intermodulation of this kind has the effect identical with the unbalancing effect brought about by B and C, a *new* ‘set’ of rays is modulated in the direction indicated by D.

The body has a new ‘set’ of modulated rays to move along and it will try to do this, but again there is the unbalancing effect of C and again there is intermodulation.

The process is now continued until either A spirals into C, or, as in the case of a satellite—where the forces or modulations are balanced—it will continue to orbit indefinitely.

The whole point is, that because the body is forced continually to modulate a new set of rays every degree of arc, there is shown a reluctance which we call centrifugal force, or rather the reaction to centripetal force. Much the same sort of condition may exist in the atom, the proton ‘catching’ the electron by an unbalanced condition. The repulsion of electron by an electron is possibly due to an unbalanced condition in the opposite sense.

The great importance of the theory lies in the fact that it is not difficult to modulate the etheric rays. We do so every day of our lives, by moving our bodies, or any inanimate object. Mr Avenel has told us that we probably do the same thing by pressing the button of an electric torch. It is very simple, but strangely enough we are not aware of it. It may be just as simple to move a vehicle from our planet’s surface other than by the blasting method of the rocket. At present in order to ‘lift’ the vehicle we exert a force in the direction we desire it to move, that is, upwards, and in doing so we modulate the very rays which were keeping it in its original state (gravity). By understanding the etheric rays we may be able to modulate them by other means and achieve the same result with far less expenditure of energy and discomfort.

We are now in a position to elaborate a little on Mr Avenel’s basic theory of gravitation. It is possible of course that in some respects my own theory may differ slightly from Mr Avenel’s, but the difference (if any) will be of detail, and of no fundamental importance to the theory.

Although the subject of gravity is of prime importance,

the developed theory is beyond the scope of this book. However we can briefly correlate the known aspects of gravitation to the general theory, in the summary which follows:

Inertia. The resistance offered by the etheric rays to being modulated. The greater the mass the greater the number of rays to be modulated, therefore the greater the resistance set up. (See *Figs*. 10a and 10b.)

Velocity. Rate at which modulations are transferred by resonance to intersecting rays.

Momentum. Number of rays modulated in direction of motion times the rate of transference of modulation in intersecting rays.

Acceleration. Unbalanced modulations by a continued interference or applied force.

Gravity. In the case of two equal masses V and Y, *Fig.* 12a. Mutual unbalance by interference resulting in continual increase in velocity (acceleration) which is evenly shared.

In the case of two unequal masses W and Y, *Fig.* 12b. Greater number of rays being modulated and greater mutual unbalance by interference, therefore continual increase in velocity which is not evenly shared, due to ‘inertia’ resistance set up in W. If the mass of W is now increased to X, an even greater number of rays are modulated, therefore the higher will be the degree of unbalance and the greater the acceleration, *Fig.* 12c. If now the mass of Y is doubled as in *Fig.* 12d, it will still move towards X with the same acceleration as it did when it was only half the mass.

All these facts then can be observed in everyday mechanics and although the comparisons just made are

deliberately simplified and can only by improved by complication, the basic argument for further speculation is there. If we can show that there is some truth in the theory, then we may be

in a better position to judge the possibility of employing other means of space ship propulsion.

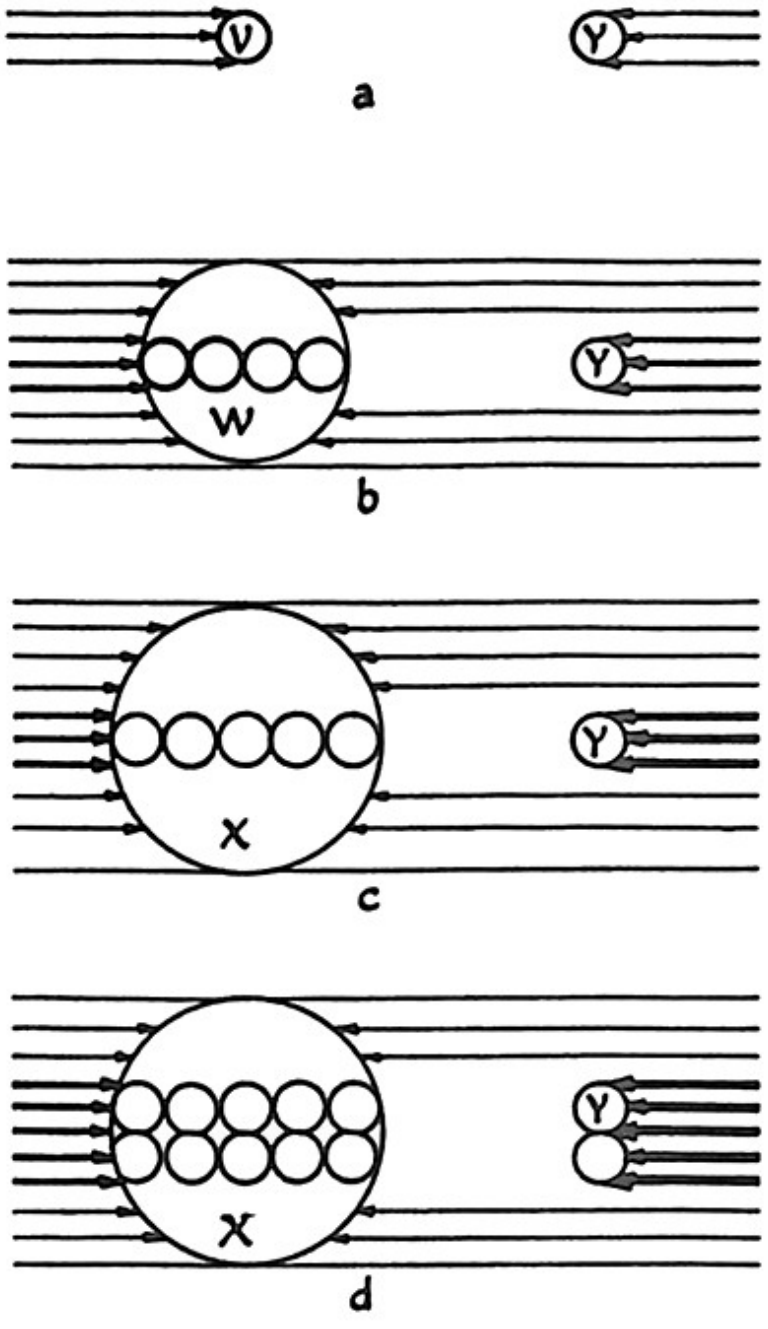

Fig. 12 Gravity by mutual modulation represented diagrammatically

This then is the fascinating problem we are attempting to solve. We are slowly becoming aware of the truth about space and matter, and we will certainly be able to recognise the answer when we do see it, provided only that we shed the bias that holds us to old ways of thinking when challenged by new ideas. On the other hand, it may be that the problem was solved long ago and our task is to re-discover an old-established truth.

13 Levitation

MANY people find flying saucers difficult enough to accept without the introduction of a further 'mysterious' subject. To these sceptics we must offer our apologies. Also, we must ask the flying saucer enthusiast to be patient if he finds the following facts difficult to accept.

In a book on space travel by rocket the facts would be definitely out of place, but in a book on space travel by unbalanced G-field the information is of the utmost importance. Therefore, I have dared to include a branch of a subject that I have thoroughly investigated and it is my firm belief that the fundamental principle behind the operation of the flying saucer and the phenomenon presently described is identical.

This same phenomenon has been partly responsible for the formation of the basic theory in these pages. I have been a keen space flight enthusiast for a good many years and I have studied thoroughly rockets and space ship design. I was, however, to witness an anti-gravitational force that was smooth, silent and gentle, yet so powerful as to be frightening. The sceptic may try to explain away the phenomenon as a fraud, but it should be mentioned that no responsible person has remained unconvinced after a thorough investigation into psychic phenomena. There are subjects worthy of the highest scientific investigation left coldly on the shelf; if only they could be scientifically studied they

might well solve many of our present day problems. Research has often

been conducted by one with courage and faith, but lacking financial support he has had to persevere with inadequate equipment. Consequently, he takes longer to achieve results. Had he received encouragement and been given greater facilities his progress might have been numbered in weeks instead of in painstaking years. These conditions exist even in this age of scientific discovery, this era of atomic energy. There are people living in this country, and, indeed, all over the world, who have witnessed phenomena beyond the comprehension of the experts at the atomic research stations of Harwell, Los Alamos, and other similar places. People have seen things that they desire to understand and, given the facilities, would attempt to do so, but their reports are ridiculed by many so-called scientists merely because they cannot understand them.

Long before the expression ‘flying saucer’ had been heard of, I have on many occasions witnessed, under strict test conditions, the phenomenon of complete levitation of inanimate objects. These objects have been seen suspended in midair by invisible and intangible means. There were no concealed strings and no magnets. Fraud was quite out of the question under the circumstances. Auto-suggestion, hallucination and the like can be ruled out. Scientific equipment was used to record, measure and take photographs, just as they do at Harwell and Los Alamos. Whether we like it or not, these things did happen and still do, for that

matter. The circumstances under which the phenomenon has been examined cover a different subject and would be out of place in this book, but the important thing is that to anyone with patience, who would take the trouble to investigate, it will become obvious that recognised science is very one-sided in its investigation of the phenomena of life. Who knows but that many of the problems facing the physicist of to-day could be answered by studying the subject from a slightly different angle. They certainly would see things that they cannot see

in the laboratory. How many rocket enthusiasts would be left unmoved should they witness, as the author has witnessed, the independent suspension of an object weighing some two hundred pounds? Perhaps it would not be unnatural for them to look a little closer in to flying saucer reports than they have hitherto dared. To those who take the trouble to investigate, it will be apparent that many of the conditions which prevail in the so-called psychic levitation of an object are frequently observed by ordinary people when making a report on a saucer sighting.

Neither need we expect magic when we are confronted with something we do not understand. Everything, we suspect, obeys natural laws. Slowly through the ages we have come to understand some of these natural laws: even in this age of great scientific discovery, we still have a lot to learn about the great scheme of the universe.

The true philosopher-scientist is never hasty to condemn as impossible something he does not understand. Rather does he set about trying to explain the inexplicable. There are far too many who will deny as impossible something they have never taken the trouble to investigate, despite the information passed on to them by ‘the few’. Take for example the researches of Sir Oliver Lodge and Sir William Crookes, eminent scientists in their own right. Yet when they boldly tackled the so-called occult, they were criticised by their colleagues. As a result, here we are in the year of grace 1954 still tinkering about with firework rockets when in 1874 the English physicist Sir William Crookes observed a phenomenon that is matched and possibly employed by the flying saucer. I refer to the complete levitation not only of inanimate objects, but of the human body as well. Here is an account by Sir William Crookes (1832-1919) who witnessed several levitations by the well-known medium of that time, Daniel Douglas Home.

> The best cases of Home’s levitation I witnessed were in my own house. On one occasion, he went to a clear part of the room, and, after standing quietly for a minute, told us he was rising. I saw him slowly rise up in a continuous gliding movement, and remain about six inches off the ground for several seconds, when he slowly descended. On this occasion no one moved from their places. On another occasion I was invited to come to him, when he rose eighteen inches off the ground, and I passed my hands under his feet, round him and over his head when he was in the air. On several occasions, Home and the chair on which he was sitting at

the table rose off the ground. This was generally done very deliberately and Home sometimes then tucked up his feet on the seat of the chair and held up his hands in full view of all of us. On such occasions, I have gone down and seen and felt all four legs were off the ground at the same time, Home's feet being on the chair. Less frequently the levitating power extended to those next to him. Once my wife was thus raised off the ground in her chair.

The frequently reported 'miracle' of Home's body floating out of windows high above street level occurred in London on 13th December 1868, in the presence of three witnesses. These were Lord Adare (later Lord Dunraven), his cousin Captain C. Wynne, and Lord Lindsay (later Earl of Crawford and Balcarres) who, at one time, was a member of the Council of the Royal Society. Perhaps the following account of this levitation, given in Lord Lindsay's own words, will be of some interest.

I was sitting with Mr Home and Lord Adare, and a cousin of his. During the sitting Mr Home went into a trance, and in that state was carried out of the window in the room next to where we were, and was brought in at our window. The distance between the windows was about

seven feet six inches, and there was not the slightest foothold between them, nor was there more than a twelve-inch projection to each window, which served as a ledge to put flowers on.

We heard the window in the next room lifted up, and almost immediately after we saw Home floating in the air outside our window.

The moon was shining full into the room; my back was to the light, and I saw the shadow on the wall of the window-sill, and Home's feet about six inches above it. He remained in this position for a few seconds, then raised the window and glided into the room, feet foremost, and sat down.

Lord Adare then went into the next room to look at the window from which he had been carried. It was raised about eighteen inches, and he expressed his wonder how Mr Home had been taken through so narrow an aperture.

Home said, still entranced, 'I will show you', and then with his back to the window he leaned back, and was shot out of the aperture, head first, with the body rigid, and then returned quite quietly.

The window is about seventy feet from the ground.

Home's extraordinary ability to be able to levitate is by no means unique. In the East, levitation of the human body is an accepted fact. The Hindus claim that they are able to produce the phenomenon. They stress the importance of a proper mental attitude together with certain physical exercises, including deep rhythmical breathing.

It is claimed by certain adepts that by closely observing the prescribed ritual, a 'living force' can be generated which counteracts the force of gravitation.

Over the years there is continual reference to people experiencing autolevitation. The French Abbot Augustine Calmet wrote in 1751:

Persons full of religion and piety who, in the fervour of their orisons, have been taken up into the air and remained there for some time. We have known a good monk who rises sometimes from the ground

and remains suspended without wishing it, without seeking to do so, especially on seeing some devotional image, or on hearing some devout prayer such as Gloria in Excelsis Deo. I knew a nun to whom it has often happened in spite of herself, to see herself thus raised in the air to a certain distance from the earth; it was neither from choice nor from any wish to distinguish herself, since she was truly confused by it.

Calmet relates the story of St Richard, Abbot of S. Vanne de Vordum, who in 1036 was 'elevated from the ground, while he was singing mass in the presence of Duke Galizon, his sons, and a great number of lords and soldiers'. And another later levitation, that of Father Dominic Carmo Dechaux (Dominic of Jesus-Mary) in Madrid in 1601, in the presence of King Phillip II of Spain, his Queen and the entire court. 'So that they had duly to blow upon his body to move it about like a soap bubble'. (Does this not suggest an absence of inertia?).

Perhaps one of the most complete works of autolevitation is the book of Olivier Leroy the French university professor. In this book Leroy repeats some two hundred instances of levitation. Among them the story of St Teresa of Avila (1515 - 1582), the famous nun who was responsible for the drastic reforms in the Carmelite Order in Spain. She was canonised by Pope Gregory XV in 1622. Here is a somewhat condensed account of her own reactions to her unusual experience.

During rapture, the soul does not seem to animate the body … rapture, for the most part, is irresistible. It comes, in general, as a shock, quick and sharp, before you can collect your thoughts or help yourself in any way, and you see or feel it as a cloud or a strong eagle rising upwards

> and carrying you away on its wings … I would very often resist and exert all my strength, particularly at these times when rapture was coming upon me in public … Occasionally I was able, by great efforts,to make a slight resistance; but afterwards I was worn out, like a person who has been contending with a strong giant; at other times it was impossible to resist at all; my soul was carried away, and almost always my head with it, and now and then the whole body as well, so that it was lifted up from the ground … It seemed to me, when I tried to make some resistance, as if a great force beneath my feet lifted me up. I know nothing with which to compare it … for it is a great struggle, and of little use, whenever our Lord so will it … .
>
> I confess that it threw me into a great fear, very great indeed at first; for when I saw my body lifted up from the earth, how could I help it? Though the spirit draws it upwards after itself, and that with great sweetness, if unresisted, the senses are not lost; at least I was so much myself as to be able to see that I was being lifted up … When the rapture was over, my body seemed frequently to be buoyant, as if all weight had departed from it; so much that now and then I scarcely knew that my feet touched the ground.

Of no less significance are the recorded stories concerning the monk St Joseph of Copertino (1603-1663). Not long after his admission to the priesthood in 1628 and from then on until his death, Joseph experienced a large number of these levitations during which he sometimes enjoyed ecstatic flights when his body was transported from one place to another. It is said that for thirty-five years his superiors were compelled to restrict him to certain processions, even

to the extent of common meals in the refectory, because of the disturbances his frequent levitations would cause.

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Of the testimonies available, probably the most reliable is that of a surgeon, Francesco Pierpaoli, who says:

'During the last illness of Father Joseph, I had to cauterise his right leg by order of Doctor Giacinto Carosi. Father Joseph was sitting in a chair, with his leg laid on my knee. I had already begun cauterising, when I noticed that Father Joseph was rapt out of his senses; his arms were outspread, his eyes open and lifted to heaven. His mouth was wide open, his breathing had nearly stopped. I noticed that he was raised about a palm over the said chair, in the same position as before the rapture. I tried to lower his leg down, but I could not; it remained stretched out… In order to observe Father Joseph better, I knelt down. The above-mentioned doctor was examining him with me. Both of us ascertained undoubtedly that Father Joseph was wrapped in ecstasy and actually suspended in mid-air as I have already said. He had been a quarter-of-an-hour in this situation, when Father Silvestro Evangelista, of the monastery of Osimo, came up. He observed the phenomena for some time, and commanded Joseph under obedience to come to himself, and called him by name. Joseph then smiled and recovered his senses.

Between the years 1870 - 1873, Sir William Crookes conducted many experiments into levitation; the following is a quotation from an article of his published in the *Quarterly Journal of Science*, January 1874.

On five separate occasions a heavy dining table rose between a few inches and one-and-a-half feet off the floor, under special circumstances which rendered trickery impossible. On another occasion a heavy table rose from the floor in full light, while I was holding the medium's hands and feet. On another occasion the table rose from the floor, not only when no person was touching it, but under

conditions that I had pre-arranged so as to assure unquestionable proof of the fact… On one occasion I witnessed a chair, with a lady sitting on it, rise several inches from the ground. On another occasion, to avoid the suspicion of this being in some way performed by herself, the lady knelt on the chair in such a manner that its four feet were visible to us. It then rose about three inches, remained suspended for about ten seconds, and then slowly descended.

Upton Sinclair, author of the interesting book *Mental Radio*, which although concerned mainly with telepathy has a very interesting description of a levitation produced by a young foreign medium, that he witnessed. Sinclair was never able to detect any trickery and he describes the amazing phenomenon in the following words:

In our home (the 'physic') gave what appeared to be a demonstration of levitation without contact. I do not say that it really was levitation; I merely say that our friends who witnessed it—physicians, scientists, writers and their wives, fourteen persons in all—were unable to even suggest a normal method by which the event could have happened. There was no one present who could have been a confederate, and the psychic had been searched for apparatus; it was in our home where he had no opportunity whatever for preparation. His wrists and

ankles were firmly held by persons whom I knew well—and there was sufficient light in the room so that I could see the outline of his figure slumped in a chair. Under these circumstances a thirty-four pound table rose four feet into the air and moved slowly a distance of eight feet over my head.

From the book, *The Unknown Effects of Mind on Matter* by Doctor Eugene Osty and Marcel Osty, comes more evidence of levitation. The investigators conducted many

meticulously prepared experiments with the Austrian medium, Rudi Schneider, brother of the better-known Willy Schneider.

They did not seek sensational results, but spent a great deal of time in devising delicate and ingenious instruments in order to detect the psychic emanations from the medium.

Their findings convinced them that Rudi Schneider could mentally produce the formation of an ‘invisible substance’. From time to time he would announce exactly when the force would affect the apparatus and this was always confirmed by the instruments. These investigators substantiated the claim that a white light completely precluded the phenomenon, while even a too strong red light interfered with it. (Note the significant connection between this type of phenomenon and light.) They used instruments that recorded unusual infra-red ray disturbances and discovered that even these rays seemed capable of destroying the emanations.

There was the occasion when by sheer effort of mind, Rudi caused a flower to be raised from a vase and set it sailing over the heads of those present.

There seems little doubt that Alfred Still, author of the fine book, *Borderlands of Science*, comes very near to the truth when he says:

> Granting that levitation does actually occur, it would seem that the mind of a living organism is capable of creating something physical —the psychic force, or 'invisible substance' of the Ostys, and that darkness, or the absence of disturbing light, is desirable while the act is pending. The physicist, who knows nothing about the nature of gravitation and very little about the nature of light, is inclined to believe in a streak of similarity between the two. This suggests that, just as light appears to weaken or destroy the psychic force that produces levitation, so

this psychic force, in turn, may be able not merely to annul but to control gravitation.

Yet again the great physicist, Sir Oliver Lodge once said:

> Life and mind and consciousness do not belong to the material region; whatever they are in themselves, they are manifestly something quite distinct from matter and energy, and yet they utilise the material and dominate it… Mind does not itself exert force, nor does it enter into the scheme of physics, yet it indirectly brings results which otherwise would not have happened … A bird grows a feather, and a bird builds a nest; I doubt if there is less design in the one case than in the other. How life achieves the guidance, how even it accomplishes the movements, is a mystery, but that it does accomplish them is a commonplace of observation. From the motion of a finger to the construction of an

aeroplane, there is but a succession of steps. From the growth of a weed to the flight of an eagle—from a yeast granule at one end, to the human body at the other—the organising power of life over matter is conspicuous.

The sceptic may say that many of the instances quoted took place long ago, and may therefore be of doubtful authenticity, but that in itself is no argument. Identical phenomena are occurring from day to day at this present time the world over. If it can be accepted as some additional evidence, the author would like to add his own experience of levitation, to that of the more eminent researchers.

The instances occurred in 1947 in a small house in London. Among those taking part were the author's wife and other members of his family. Test conditions were imposed by the author who has conducted many such experiments before. The normal white light was excluded and was replaced by a red light from an ordinary small bulb. This offered a very dim light at first but illuminated everything in the room when

the eyes had become accustomed to it. If any of those present made the slightest movement it could easily be detected. Precautions were also taken to prevent any outside disturbance, and there were no chinks to let in any white light.

The object chosen for the experiment was a large and very heavy piano stool, the seat of which was hollow and hinged along one side in the customary manner to form a music case. Those present were seated around the stool which was placed in the centre

of the room, and each member placed the tips of his or her fingers lightly on the polished surface, near to the centre, so that it was impossible to grip the edge. After a period of fifteen minutes, the stool was felt to rock gently to and fro, as if it had lost most of its weight. Then the rocking motion slowly subsided and for a moment all was still, when suddenly and quite unexpectedly the lid of the stool opened to an angle of some 45 degrees. This made it difficult for the people on the lifted side to keep their fingers in place without standing. The lid gently closed without a sound. After a pause, the phenomenon was repeated for a few minutes and then all was still. Efforts were made to simulate the motion by hand, but it was found to be quite impossible for one person to close the lid while the others had their hands in place without making a noise or a little jolt. Before, so slow and gentle was the movement that we were not quite sure when the lid was closed, and we had to apply a little pressure to establish that it was so. The phenomenon was not repeated on that occasion. At subsequent meetings, the same thing took place, but there was evidence that the relative positions of those present was important. Then quite unexpectedly, during one of the little pauses when the lid was closed, the end of the stool nearest the author suddenly rose about six inches off the floor, where it hung quite leisurely, rising and falling a little, as if in a gentle breeze. Then it dropped with equal suddenness, but with a

cushioned effect at the end of its fall, so that once again there was no noise.

At the following meeting when the lid was raised to an angle of 45 degrees the author requested those present to remove their hands from the surface. They did so, but there was no appreciable change in the lid. On replacing their hands it commenced its gentle movement and slowly closed. No amount of trying by other means succeeded in duplicating this phenomenon. The lid was far too heavy to stay at an angle of 45 degrees on its own.

At later meetings the same phenomenon was observed and we took notes and recorded temperatures. The author's brother John (from whom the energy seemed to flow) was subjected to all kinds of tests and every precaution was taken. French chalk was used on everyone's hands, their feet were placed securely behind the chair legs, and nothing was overlooked. Then quite suddenly and again without warning, John and his chair were lifted bodily off the floor to a height of several feet, where he hung for a second or so before crashing backwards against the wall. As a result we were all quite excited and brought the meeting to an end. John described his experience as comparable with sitting on top of a powerful jet of water.

It may be of interest to note that John weighed twelve stone at that time, so that the total weight of the sitter and the chair was estimated at some two hundred pounds. He was levitated to a height of three feet at a speed, as near as we could estimate, of ten feet per second, which amounts to two thousand foot pounds of work or $\frac{2{,}000}{550} = 3.6$ horse power, approximately. Needless to say we did not have a 3½ h.p. motor among us, yet that power was generated, out of… nothing?

Those unacquainted with psychic phenomena may be reluctant to accept such reports and the student will no doubt

want to ask if allowing for levitation of the human body to be a fact, does it in any way suggest a means by which the phenomena of‘anti-gravity’ operates, and can it offer a guide for our future researches? Quite clearly, it can. By a careful study of levitation, several important facts come to light, two of which have already been mentioned. The apparent loss of inertia associated with levitation, and perhaps more significantly still, the so-called ‘ecstasy’ or rapture as St Teresa of Avila, the famous nun, called it. If we complete an electrical current by taking hold of two charged electrodes, we experience a sensation commonly called an electric shock. A change has taken place in our body structure which reacts on our nervous system. Now, if in a similar manner the atoms in our bodies were so affected as to cause them to ‘lose’ their inertia, a ‘mere thought’ may be all that

would be required to move us from one position to another. Further, gravity would also lose its meaning. If we can now imagine such a condition to exist, is it unreasonable to suppose that such a change of the atomic state would react on our nervous system, and we would experience a sensation of ‘ecstasy’?

The author has discussed the various reactions to psychic phenomena with several mediums and, without exception, they described the ‘ecstasy’ as mainly physical, while some have actually described it as being completely enveloped in tiny electric shocks or ‘pins and needles’. We would be unwise to reject such descriptions coming from people who have shown the phenomena they produce to be entirely genuine. When Rudi Schneider said that he willed that rose to float, he obviously meant what he said; and what is more, he was probably right. Very little is known regarding the power of the mind, but we have many demonstrations of it. The eastern yogi ‘wills’ his body to defy the earth’s gravitational pull and he floats in mid-air, though he is exhausted by the effort. Let there be no mistake about it, this manifestation is an accomplished fact as anyone will discover if they

really take the trouble to investigate. The water diviner, whom science has accepted as a genuine ‘freak’, uses a crude instrument to amplify high frequency impulses that emanate from his brain, but were we all to use this faculty lying dormant within us, there would be little need for an amplifier.

It may be that just as the yogi's subconscious mind 'knows' what to do to cause his body to become weightless, and just as our subconscious mind 'knows' what to do in order for us to breathe, so by learning we may discover 'what to do' consciously and even mechanically. Then just as the water diviner uses an amplifier, we may construct a mechanical amplifier to do the will of our minds, without the resulting exhaustion of the yogi and perhaps we may even call the amplifier a flying saucer!

If we find such reasoning difficult to accept let us reflect that science is still trying to understand the basic composition of matter and that it is a known fact that our senses react to certain wave bands in all aspects, just as animals react to higher pitched notes that are inaudible to us. Can we therefore claim with any degree of certainty that there is not such a thing as a higher wave band of matter beyond our sense perception?

When we at last recognise these facts, man-built flying saucers will be commonplace. Even living in space will not present such problems as we at present think.

We can look forward to the time when we will be able to dispense with the necessity of carrying food, water and oxygen on interplanetary journeys. In fact the 'Saucerians' probably dispensed with the necessity thousands of years ago. At the moment our dreams of an interplanetary rocket vehicle are in many respects similar to the design of our present-day submarine. The cabin will carry living quarters and instruments,

oxygen, light, and other everyday necessities; even the method of propulsion is similar, they both

eject a reaction mass, and outside the ship there is an alien medium in which we cannot freely live; therefore we are compelled to wear a space, or diving suit. Fundamentally, there is very little difference.

At present, the submarine carries its own oxygen supply, but in actual fact there is oxygen in the water all around it, and when more efficient ways are known the water will be drawn into the ship, then passed into instruments where the oxygen and hydrogen will be separated, a large proportion of the gas being employed in combustion to supply energy for a gas turbine. There was a rumour that the Germans were trying to do precisely this during the last Great War.

The principle of such a procedure is basically simple to understand and we all accept it, but its counterpart in outer space may be a larger pill to swallow; yet there is no reason why it should be. Not many years ago, people could not understand the basic separation of H_2O to supply us with gas, and the situation is exactly the same to-day, only now we are just a little farther along the pathway of learning.

So when we know more about space and its other half, ‘matter’, we may find it unnecessary to carry oxygen and food on our space journeys. Perhaps in the same way we will be able to draw in the intangible ‘ether’ to produce oxygen and ‘fuel’ for power. Such a theory does sound like science fiction, but is there any branch of present day science that would not have

given a similar impression a few hundred years ago? Our position is a little better established in fact, for in the flying saucer we are privileged to catch a glimpse of what one day may well be our own flying machine.

14 Mechanics of the Flying Saucer

WE have reviewed some of the available information on the flying saucer, together with the theory that is suggested by that information. And, in the previous chapters, we have discussed a further theory on gravitation which is supported by observed facts and reports. Having arrived at this stage, we are now in a position to discuss to some limited extent the possible 'mechanical' requirements which may produce an 'unbalanced' gravitational field.

We have shown how the 'force' of gravity can be overcome or 'neutralised' by the emanations observed under so-called psychic conditions. Further, it has been pointed out that the build up of psychic emanations is extremely sensitive to white light. Something we have not discussed, however, is the fact that, under certain conditions, light may, in turn, be modulated by high frequency vibrations (ultrasonics) or electronic radiation.

That this should be so is borne out by the general theory of creation, for gravity, 'psychic' emanations, light, electronic radiation and ultrasonic vibrations, are but different 'expressions' of the etheric rays. (*Fig.* 13.) It follows, therefore, that if gravity is but one 'expression' of the etheric rays, under suitable conditions it may be neutralised by the application of any of the other 'expressions' or by a suitable

combination which may produce the equivalent of a ‘psychic’ or rather a higher vibratory condition, as indicated in the diagram.

Fig. 13 Relationship of gravity to the etheric rays

If there was a complete absence of evidence to lend weight to the general theory, then the reader would be justified in disregarding it, but that is not the case, for

the theory is strengthened by many observed aspects of natural phenomena which hitherto have not been explained by the known laws of physical science.

We have suggested that gravity may be neutralised by a modulation of light, and there is evidence available which lends weight to that suggestion, and it must be pointed out here again the phenomena now described has been examined more recently and, it should be explained, quite independently.

Here is an account of an experiment carried out by the well-known Viennese physicist, Felix Ehrenhaft, whose work may prove to be an inspiration to students of this new approach to Kinematics.*

Ehrenhaft and his colleague, Ernst Reeger, have proved that there is more than a little truth in the suspicion that tiny particles of dust tend to rotate when exposed to the rays of the sun. For they have not only reproduced this phenomenon in the laboratory, but they have succeeded in photographing it as well. In order to do this, Ehrenhaft placed tiny graphite particles into a glass flask, from which the air was completely evacuated. Then the flask was exposed to focused beams of

* Movement without force

sunlight. Instantly a large number of particles were seen to rise from the bottom of the flask and start to weave elliptical, circular and spiral-shaped paths, which were quite visible to the naked eye. The phenomenon ceased as soon as the light was weakened or cut off completely. Photographs taken at one-fifth

and one-tenth of a second proved that not only were the particles orbiting, but more significantly, they were spinning on their own axis.

It is of interest to note that Ehrenhaft would like to relate the phenomenon to his own theory of a new type of physical force. He suggests that it is a purely ‘magnetic’ force which permeates throughout the known universe.

We cannot reconcile ourselves to the fact that Ehrenhaft uses the term ‘magnetic force’ literally; he used it no doubt to save further and more complicated explanation, but there can be little doubt that his theory will not be far removed from our own.

Apart from the significance demonstrated by Ehrenhaft’s experiments, the spiral and rotational aspect of the phenomenon may indicate a further clue as to the flying saucer. For a friend of the author’s pointed out that unidentified objects have often been described as performing a high speed ‘zig-zag’ course when seen immediately above and also when seen on the horizon, giving the effect of a sine wave, or a ‘stone skipping across a mill pond’.

Is it not possible that this is simply the visual effects of an object performing an elongated spiral? It seems to be the most logical explanation.

Many concerns are experimenting with ultrasonics —which at the moment is a relatively new science— and many ‘queer’ results are being achieved. Over the last few years these same ‘queer’ things may have been happening on a certain stretch of road near London where a large number of car windscreens have

been inexplicably shattered. It is well within the bounds of possibility that during an experiment

employing the use of ultrasonics, the right condition will prevail and the operator will find himself making friends with the ceiling. Many scientific wonders have been discovered through similar accidents.

Flying saucers are frequently described as being semitransparent or translucent, and that may in itself suggest a type of glass. Now there is reason to believe that a certain Czechoslovakian physicist conducted some rather unusual experiments just before the Second World War. It is said that this scientist succeeded in completely ‘levitating’ a cubic inch of a special kind of glass some six inches into the air by unusual means. Very little is known about this case, except that a cubic inch of this glass, and a cubic inch of marble was used. As yet we do not know the connection that this may have, but it is important for us to know that there are cases on record where cylinders of marble have fallen from the sky. Bearing all this in mind, can we be certain that a super type of glass—unknown to us at present—will not ‘lose’ its inertia with the application of certain wave bands of ultrasonics, light, or even electronic radiation?

There is reason to suspect—as we shall see in the following chapter—that certain parts of the celestial vehicle we call the flying saucer are in fact truly parabolic. If that is the case, might there not be a connection between the parabola of the flying saucer and the huge luminous inverted ice cream cone that

has been seen at night? Could it be that the apex of the cone is in fact the focal point of a beamed field of force? (See *Fig.* 14.) That the cone is a visual effect created by the field as it widens out? Indeed, there is further evidence that this may be so, when we remember that saucers have been seen leaving the area where a cone phenomenon has just occurred. That flying saucers are not built to one pattern is most evident and it follows that even the means of operation may vary for certain applications, though the results are the same. In fact, much the same as the differences

between our own conventional aircraft and the helicopter, the principle of aerodynamic lift is there in both cases, though outwardly the application is different.

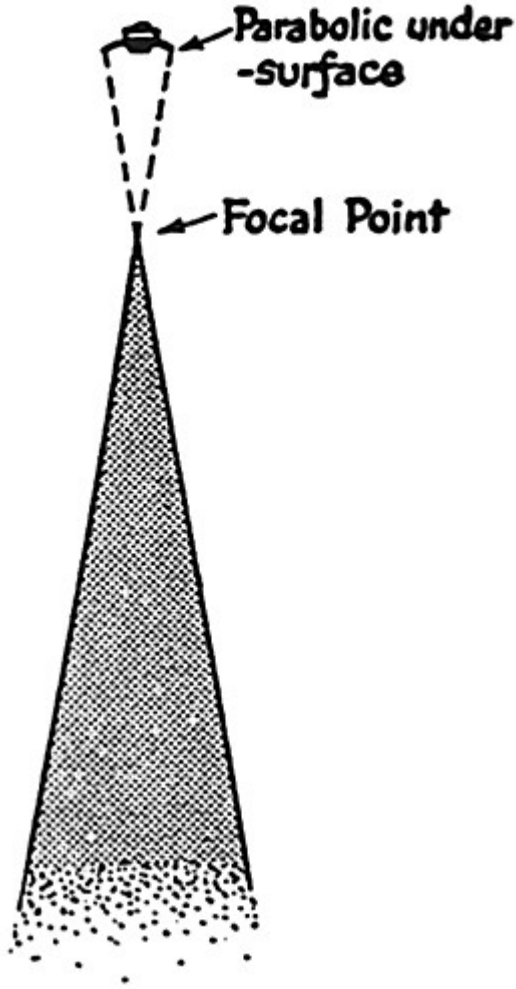

Fig. 14 *Visual effects of force field*

Earlier, when we dealt with the analysis of the flying saucer, the rotation of certain parts about the central axis was briefly considered, and now we are in a position to elaborate a little on this part of the phenomenon. When one section of the disc is said to revolve, we may speculate as to the mechanics that cause it to do so and in this respect our supposition is rewarded by a little evidence. For there has been recorded occasions when saucers have presented a

distinct ‘catherine wheel’ appearance, as in the photograph by Enrique Houseman Muller* (See *Plate* 3.) From this it would seem that there is some form of jet propulsion used to rotate the disc, but we must not be too hasty to interpret it as such. Further, there seems to be no evidence of opposite reacting ‘jets’ to counteract frictional torque on the central portion. Then we are faced with the difficulty of explaining why it is that the jets are not always apparent; why is it that there is sometimes evidence only of the ‘jet ports’ and no efflux? Then the apparent variation of the ‘jets’ from ‘small bluish lights dancing around the rim’ to strong gushing ‘exhaust’ streams; does this suggest that there is control over these ‘jets’ and therefore there is a need so to control them? It is true that certain kinds of flame are more visible at night than by day, but let us examine the following

* Newsreel cameraman in Balearic Islands.

extraordinary story, for on the saucer claimed to have been seen there was the suggestion of ‘jets’ of a kind, and if we dare to accept the story as being true we may find in it a most vital clue.

Here then is the sensational story that in the Spring of 1952 caused a great deal of controversy and no doubt a great deal of scepticism; such stories are usually difficult to accept, but we must be patient; more shocks than this may be awaiting us before the flying saucer mystery is solved.

The man who first brought to light this story is grey-haired, 48-year-old ex-mayor Oskar Linke of

Gleimershausen, near Meiningen. He had escaped from the Russian Zone with his wife and six children. In the company of West Berlin officials, Herr Linke with his eleven-year-old step-daughter Gabriele swore this solemn affidavit before a judge:

I was riding home on my motor cycle, with Gabriele on the pillion, when a tyre burst near the village of Hasselbach.

As we were pushing the machine towards Hasselbach, Gabriele pointed to something about a hundred and fifty yards away. At first sight in the half light, I took it for a young deer.

I left my motor cycle by a tree while I approached the 'deer' cautiously. I was now about sixty yards from it.

I then realised that my first impression had been incorrect. The thing I had noticed was really two apparently human figures now about fifty yards from me.

They appeared to be clothed in a kind of shimmering metallic substance, and were bending down and studying something on the ground.

I wormed my way to within about thirty feet of them. Peering over a small ridge, I noticed a large object, which I judged to be about forty to fifty feet across, though it was hard to say exactly. It looked like a huge warming pan.

There were two rows of holes along the sides, about a

foot in diameter. Each row was roughly a foot-and-a-half from the next.

Out of the metallic object rose a black cylindrical 'conning tower' about ten feet high.

Linke went on: I was now alarmed by a call from my daughter, who had remained some distance back. The sound must have

reached the two figures, for they rushed back to the object, clambered rapidly up the side of the conning tower and disappeared inside.

Previously I had noticed that one appeared to be carrying a lamp on his chest. The lamp flashed on and off at regular intervals.

The outer edge of the ‘warming pan’ in which the holes were sunk, now started to glow.

The colour at first seemed green, then changed to red. At the same time I heard a slight hum. As the glow and the sound increased, the ‘conning tower’ was retracting into the centre of the ‘warming pan’ and the whole object rose slowly from the ground.

From the swirling effect of the glowing ‘exhaust’, I got the impression that the whole object was spinning like a top.

It seemed to be resting on the cylindrical piece which had sunk through the centre of the object and was now protruding from the bottom and standing on the ground.

The ‘warming pan’ with its glowing outside ring of flame, was now some feet off the earth.

Then I noticed that the whole object was rising slowly from the earth. The cylinder on which it had rested had now disappeared inside the centre and reappeared again through the top.

The rate of ascent now became much greater, and at the same time my daughter and I heard a whistling sound, rather like the noise made by a falling bomb, but not nearly so loud.

The object rose in horizontal position, swerved away towards a nearby village and disappeared, still gaining height over the hills and forest towards Stockheim.

Several other people in the area later told Herr Linke they had seen something which they took for a comet.

One, a shepherd, Georg Derbst, who was about a mile-and-a-half away, said he thought a comet had bounced off the earth.

A sawmill watchman told Herr Linke he had seen what he thought was a ‘low flying comet’ flash away from the hill where Herr Linke saw the object.

After appearing before the Judge, Herr Linke said: I would almost have believed that my daughter and I had dreamed the whole episode were it not for one thing.

When the thing had gone, I went to the place where it had been standing. I found a circular depression, evidently freshly made, where the earth had been driven down.

This was exactly the shape of the ‘conning tower’, I realised then that I had not been dreaming.

He continued: ‘I never heard the expression ‘flying saucer’ until I escaped to West Berlin from the Soviet Zone.

When I saw the thing first, I thought it was a new Russian war machine.

I was terrified for the Soviets do not like one to know about their goings-on, and people are shut up for years in East Germany for knowing too much’.

It is of the utmost importance that we do not immediately reject such a story, but let us remember that no matter how incredible it may sound to us, we cannot be certain that it is not the truth. It is wiser to examine the report thoroughly to assess for ourselves whether it is just a fabrication, or if the description fits in any way with our theory; if it does, there is at least reason to suspect that the story is not a hoax but fact.

Let us begin then by noting that the weird flashing light carried by one of the figures has been frequently seen on the

top of saucers. There is no apparent reason for this at the moment, but let us proceed. First, Herr Linke claims, the outer rim of the disc began to glow, while a low hum was heard; then it appears that the disc was being raised from the ground, while the central portion remained still. The glow and the hum increased and it appeared that the outer disc was rotating, while the glow seemed to be in the form of flow from the ports. Then, lastly, the central portion was raised from the earth, assuming its ‘normal’ position and the ‘take off’ was complete, accompanied only by a high pitched whistle.

If Herr Linke had for purposes best known to himself wished to invent such a story, he would probably be, as are most other people, ‘aerodynamic conscious’. A rotating disc driven by jets would probably be to him something in the fashion of the helicopter; more than likely there would have been the mention of a giant fan, or blades of some sort. Rather than a gentle hum and glow, the jets would have probably been blasting rockets, or jets as we know them.

As it so happens Herr Linke’s description of the glow and colour change fits exactly well-known electrical phenomena. Does it follow then, that the only reason for the outer disc being raised was to allow it to rotate, or can we suggest that it was equally

necessary for it not to be in contact with terra firma, the central ‘black’ portion acting as an insulator as well as a pivot? It would seem that there is some justification for such reasoning, when we remember the story of the disc that ‘disintegrated into thousands of flowing sparks’ on the farm in Copenhagen.

It may be argued that if the apparent jets are powerful enough to rotate the disc and thereby in some mysterious manner cause a lifting force, would it not be simpler to use the jets vertically to produce the same ‘lifting force’ and it is with that argument that we find a clue in favour of the G-field theory. Supposing we were designing a space ship,

and, for the moment, let us assume we were going to employ the present-day rocket principle for propulsion. For a given ejection velocity we calculate just how much mass must be ejected to produce a thrust of X tons for vertical lift. We also calculate for a certain journey that, in order to spend the fuel most economically, we will have to suffer, in the initial stages, an accelerating force of 10 g's for sixty seconds. None of us finds that an attractive proposition, but it is the best we can do at the present. Bearing this in mind we must come to reason that, if by using the same quantity of fuel we could produce a *uniform* field of X tons of force over the whole ship (including the crew) there would be no relative acceleration, so using the jets to rotate the outer part of the ship to produce a field of force may be more efficient and considerably more comfortable.

But what are we to make of this flame or fuzzy exhaust that has often been seen? Surely here is a contradiction of the G-field theory? At first it would seem that here we have evidence for a reaction mass principle; or can that, too, be explained as a G-field phenomenon?

Once again, the answer may be found by a comparison of more ordinary phenomena, or at least phenomena to which we have become accustomed. We have suggested that the saucer operates in a field of force. In what way, therefore, could such an ‘exhaust’ or ‘wake’ be caused; and, for that matter, why any wake at all? Suppose we look at it in this way. We know that when we ‘break’ a high potential electrical circuit, it is accompanied by a very bright flash due, to the partial ionisation of the local air particles. Air normally being an insulator, the current jumps across the gap.

If we take a pair of contacts and cause an extremely high frequency ‘make and break’ by continually switching on and off the current, we have what would look like a continual flame; should we now move the contacts rapidly through the air we would have something very much like an exhaust

though it may not be the kind with which we are familiar.

We cannot, of course, suggest that this is exactly what happens, but it does show how a vehicle travelling at high velocity may appear to leave an exhaust flame much the same as our own aircraft

appear to be ejecting a mass when flying at high altitudes, causing vapour trails. Actually the trail is not moving relative to the observer. In fact it is staying where it was created. The actual movement is the one relative to the aircraft.

Incidentally, while the vapour trail effect frequently noticed with flying saucers may suggest an aerodynamic machine, it should be pointed out that, just as a normal vapour trail is caused by the forced passage of a conventional aircraft which disturbs the moisture particles in the air, so a vehicle moving in a G-field with its ‘private’ atmosphere, though suffering no drag will, nevertheless, cause a certain amount of disturbance with the same result.

The glowing vapour trail or ‘jet exhaust’ often seen at night, is probably a phenomenon caused by the air particles coming in contact with the force field itself. In fact, the same may be said of the air in immediate contact with the vehicle, and it is quite possible that a certain proportion of the air particles are completely disintegrated by the extremely high temperatures generated there.

Such a state of affairs immediately suggests all kinds of difficulties, the chief one being the insulation of the crew. At first we are inclined to suspect that they would have to meet the problems of overheating by refrigeration in much the same way as our own aircraft engineers are attempting at present. But is our supposition justified? Take for example the development of the modern supersonic research aircraft. The first big obstacle, the ‘sound barrier’, has been met and overcome. Now the next obstacle will be

met around Mach 3 where serious overheating will be evident. Unless protected, the pilot will fry, the tyres on the under-

carriage wheels will melt, and so on. So we adopt the only solution available. Cool the vulnerable parts, such as cockpit, instruments, undercarriage, etc., by refrigeration. Obviously the ‘surplus’ heat has not been generated without cost; it is rather a pity therefore that we cannot turn it back to do useful work. That is exactly what we shall do, when we know how.

Is it not logical to think, then, that this is exactly what is happening with the flying saucers? Fantastic heat is being generated by the G-effect, but that heat is not being allowed to affect the occupants of the vehicle because they have probably discovered, not the most effective method of insulation, but the most successful way of converting all the heat back into work by manipulating the etheric rays permeating the vehicle, its occupants and the atmosphere immediately surrounding it. There may exist in the immediate proximity of the saucer a condition quite unknown to us at present, one of extremely high temperature yet so instantaneous is the conversion that, in the end, there is no heat at all. All that we observe is the evidence of the conversion which is light. When we know more about the composition of matter, then we shall be in a position to know more intimately than at present the true structure of the atom. That knowledge may enable us to convert matter into controlled energy when we choose. Doctor Einstein has already paved the 'way to

this by his well-known expression $E=mc^2$ Where E is energy, *m* is mass and *c* is the velocity of light. He may, indeed, go even further and provide us with the key we are seeking.

We have now arrived at a stage when we can consider what is undoubtedly the most important clue to the phenomenon of the flying saucer. We may accept or reject it as we wish, but there will be few who will deny that the profound implication is there. As I have tried to show, I believe the flying saucer is operated by a controlled gravitational field and that gravity, inertia and light, etc., are different

expressions of the ‘condition’ out of which all things find existence.

Now I ask the reader to consider the following cumulative evidence.

We all know how in the very core of matter itself the electron rotates in an orbit. We have seen that dust particles may be made to spin by the application of light. Satellites, planets, suns and even galaxies rotate and allied to this phenomenon of the universe is the so-called force of gravity. And—Flying Saucers also rotate.

15 Flying Saucers Have Landed

AS this work was being written, Desmond Leslie and George Adamski's *Flying Saucers Have Landed* was published. Consequently, no mention has been made until now of what is unquestionably one of the most amazing books on the subject. Mr Leslie has obviously spent a great deal of time collecting the information on saucers and his appreciation of the truth behind the craft and the extracts from the Sanskrit writings are a revelation. There are many of us who have delved into the past and wondered, and left it at that, but Mr Leslie has done more than this; he has established virtual proof of the existence of a power which was employed by men on this planet aeons ago. What is more, that power enabled men of long ago to sail the upper air in silver circular ships the 'Vimanas' (sky boat) as they were called, which were, perhaps, flying saucers. The possibility sounds, to say the least, incredible; the truth very often is. Mr Leslie has quoted enough authentic flying saucer stories which should help to convince even Doctor Menzel. After reading the book, we can only feel that our solar system is very, very much alive with other life and, indeed, it is we who are the backward children. We are left to reflect that should man find a successful fuel with which to blast himself off into space by rocket quite a few shocks may be in store for him. When that day comes, let us hope that he will be able to appreciate the existence of beings far superior to himself;

superior not only in the scientific sense, but in the God-like spiritual radiance that one day will be our own heritage.

Mr Leslie's comments on levitation and the link between sound and the power of the saucers has already been endorsed by the present author in the preceding chapters on the subject.

There are very few thinking people who will not envy the experience of Mr George Adamski, and despite the fact that there are many who will reject the story, there will also be many others who will realise that Mr Adamski was a privileged person, and not just by chance. It would seem that the meeting with the Venusian was no accident; that those keeping vigil in our skies observed the lonely and patient man near Mount Palomar, California, as he scanned the skies with his six-inch telescope night after night, in all weathers, waiting for a brief moment in which to photograph the phenomena we call flying saucers. They probably reasoned that a man who displayed such perseverance and sincerity of purpose deserved a reward for his faith. And so it was that George Adamski, philosopher and astronomer, met and talked (as best he could) with a being from the planet Venus; a human being, but surely a god in our reckoning. Mr Adamski described him as follows:

> About five feet six inches in height and weighed according to our standards about a hundred and thirty-five pounds. And I would estimate

him to be about twenty-eight years old, although he could have been much older.

He was round-faced with an extremely high forehead; large but calm, grey-green eyes, slightly aslant at the outer corners; with slightly higher cheekbones than an Occidental, but not so high as an Indian or Oriental; a finely chiselled nose, not conspicuously large; and an average-size mouth with beautiful white teeth that shone when he smiled or spoke … It did not look to me as

though he had ever had to shave, for there was no more hair on his face than on a child's.

He extended his hand in a gesture towards shaking hands. I responded in our customary manner. But he rejected this with a smile and a slight shake of his head. Instead of grasping hands as we on Earth do, he placed the palm of his hand against the palm of my hand, just touching it but not too firmly. I took this to be the sign of friendship.

The flesh of his hand to the touch of mine was like a baby's, very delicate in texture, but firm and warm. His hands were slender with long tapering fingers, like the beautiful hands of an artistic woman. In fact, in different clothing he could easily have passed for an unusually beautiful woman; yet he definitely was a man.

Mr Adamski goes on to tell how he 'felt like a little child in the presence of one with great wisdom and much love', learned that the people from Venus were friendly and that their coming was due to their concern at atomic explosions with resultant radio-active clouds affecting outer space.

Many people (including the Author) share the belief that radiation from atomic bomb explosions is the chief reason for the renewed interest shown in our

planet by these space visitors. It is a well-known fact that our sun is a delicately balanced concentration of destruction, the type of star that is most likely to ‘explode’ at any time, engulfing the entire solar system in the process (Super Nova).

Our physicists know so much about nuclear fission, but practically nothing regarding the link between nuclear energy and electro-magnetic-sun spot activity.

And now as this book goes to press an even greater step has been made towards the possible annihilation of the solar system, the hydrogen bomb has indicated a sombre warning by going ‘slightly astray’. There is no doubt that the

physicists employed on the production of the atom bomb really believe there is little cause for alarm, but it is well within the bounds of possibility that when more is known about the structure of space and matter, there will be many hearts that will miss a beat when it is realised just how near to catastrophe we may have come. We need not be hesitant in voicing this opinion, for it is shared by many scientists of repute. Even Doctor Albert Einstein who paved the way to nuclear energy, has warned the physicist to be cautious in such experiments. But, having reviewed the general theory of the etheric rays, we are in a better position to question the physicist when he says ‘There is no cause for alarm—an atomic bomb explosion is as a pin prick compared with the mass of the earth’. But is that the only cause for concern, can the phycisist be sure that

there is absolutely *no* connecting medium between the earth and the sun?

‘Be friendly,’ urges Mr Adamski. ‘Let us recognise and welcome the men from other worlds. They are here among us. Let us be wise enough to learn from those who can teach us much—who will be friends if we will but let them.’

Towards the end of the meeting George Adamski tells us: ‘I picked up my camera and asked if I could take a picture of him … he objected and I did not insist. I have heard many times that men from other worlds are walking the streets of Earth. And if this be true, I could easily understand his desire not to be photographed, because there were many distinguishing points about his facial features … in a photograph they would serve as points of identification for his brothers who have come to Earth.

‘I asked him if any Earth people had been taken away in space craft. He smiled broadly, and in a halfway manner nodded his head in the affirmative, although I felt he was not too willing to give that information’. The man from Venus then got into his saucer and took off, leaving Mr Adamski with ‘an emptiness such as can be compared only

with the feelings experienced when a very dear one departs; yet a longing remains for his presence’.

Such a testimony as this will obviously produce many and varied shocks among those who read it; many ideas and accepted doctrines will be violently upset, but generally it can do nothing but good, for it

will stimulate many earthbound minds to further speculation about life and the universe.

There will, of course, be those knowing ones who will turn over a few pages of this extraordinary book and dismiss it as nonsense. Among astronomers and interplanetary enthusiasts there will be much argument; a lot of the discussion will centre around the possibility of life on other planets. And they will argue that it is doubtful whether there is any life at all in our solar system. Human beings, they will say, cannot exist there at all. However, we have to get used to the idea that our measurements of other planets and our solar system are not entirely accurate, for we are observing them through an atmosphere some two hundred miles deep. Accurate readings will only be made when we finally penetrate that thick belt of gas. Only when we have built a tiny satellite of our own can we be absolutely certain about the facts and conditions of other planets. At present, 'we see through a glass darkly'. For instance, we cannot with any certainty read a planet's surface temperature, at best we can only deduce from its radiated temperature. And now having studied the theory of space and matter, it is easy to realise the interference and resulting modulations that may exist, thereby distorting many of our recordings made from this planet. Bearing all this in mind, we would be wise to hesitate before making the statement that there can be no life as we know it on other planets. The truth is, we cannot *really* be certain.

Then again there will be those who will find it difficult to accept George Adamski's story, on the grounds that if these

people existed they would have come in large numbers long ago and there is no justification or reason for an isolated meeting like his. But that may not be true, as close study of the problem will show. What would happen to the vast ungainly wheel of human commerce upon which all our way of life is based, if our would-be teachers came, acquainted as they must be, with a super developed science? They would be forced to meet us very gradually in the initial stages of contact— just as they seem to be doing at present— lest their coming might bring about social and economic collapse, through our own misuse of their knowledge. Is there any more evidence to establish the truth of this fantastic privilege we are sharing in this century? Yes, the evidence is there in abundance, it becomes even difficult to understand that there are those who still cannot accept the interplanetary flying saucer explanation.

Let us study once more the sketch, *Fig.* 1, of the object seen by Mr Potter of the Norwich Astronomical Society, and also by several other witnesses, on the night of 6th October 1953. Compare it with Mr Adamski's photograph of the saucer and we are forced to the conclusion that, if Mr Potter's report is accurate, there is either a conspiracy afoot to hoax the public or Mr Adamski's photographs are genuine. The design of both objects are identical.

Further are we to assume that Mr Potter is familiar with the theory of the controlled gravity field means of propulsion? For the capability of the flying saucer to

‘fly’ upside down is just one aspect of the phenomenon we would expect with this means of propulsion. In such a vehicle there is only *one* ‘up’ or ‘down’, that relative to the occupants it carries.

In itself this should be proof enough, but there is something else for sceptics of Mr Adamski’s story to consider before arriving at hasty and unenlightened conclusions.

At 11 a.m. on the 15th February 1954, on the slopes of

Coniston Old Man in the Lake District, thirteen-year-old Stephen Darbishire, son of a doctor, while out walking with his eight-year-old cousin Adrian, photographed a flying saucer and we have been privileged to be able to reproduce that same photograph together with the following statement written by Stephen half-an-hour after the incident:

> Adrian and I were walking on the fell (looking for some birds and some good scenes to photograph) when suddenly Adrian slapped me on the back and told me to look at a queer spherical object which was gliding down slowly from a gap in the clouds. The object was shining a silvery white as the sunshine caught it. I quickly pulled out my camera and took one photo, turned the film and took another photograph. Just as I had finished the flying saucer (which I now thought it must be) shot off up into the clouds at an alarming rate and disappeared. As it flew off it went out of the sun’s rays and I could see it was made of a plastic-like metal which light could travel through but I could not see through it. It had three landing wheels or domes and a cabin as in the diagram with portholes in. The bottom came nearly to a point. Adrian and I

were down in a small hill valley so the rising in foreground of photo is due to the position we were in. Some grass is shown under the saucer. It also made no sound whatever except for a swish as it went away.

Before going on to compare the photographs, it is instructive to compare the above description with that of Adamski when he says of the saucer:

It was a beautiful small craft, shaped more like a heavy glass bell than a saucer. Yet I could not see through it any more than one can see through the glass bricks that are popular in some of the newer office buildings and homes, which permit more light to enter than would solid walls.

It was translucent and of exquisite colour.

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Stephen did not actually use the word ‘translucent’ but his description means exactly that. There can be no possible doubt that this is a genuine story. Children do not as a rule go round faking photographs.

Of Mr Adamski’s photographs, some experts said they were convinced that they are genuine photographs taken of an object some thirty feet in diameter, and for Mr Adamski to have faked them, he would have had to throw a full-sized model into the air! Now it would seem, not only has he succeeded in doing that, but he has also been able to hurl the model some three thousand miles across the Atlantic! Or is it more reasonable to believe that even if we find it difficult to accept Adamski’s story, here in the Coniston photograph is virtual confirmation that the Venusian story is no hoax but an awe-inspiring fact?

Should the sceptic require still further proof, the results of the author's own independent investigation may help to convince him, but first a little explanation may be necessary for those who are unfamiliar with perspective drawing.

Briefly, then, I want to show that just as one can produce a true perspective or photographic representation of an object from a general arrangement or engineering drawing of that object, so it is also possible, by a reversal of procedure, to reproduce an orthographic arrangement from a photograph, especially a photograph of an object which is truly circular, such as a flying saucer.

If we can produce an orthographic view from Adamski's photographs and reproduce another from the Coniston photograph, to the same scale, we can show quite clearly any similarity. Further, if we can show by superimposing one over the other, that they are identical, where is the man who is going to proclaim the result to be a coincidence?

Let me elaborate a little. Let us assume that Adamski did make and photograph a model. That model then has certain dimensions, some of which are foreshortened in the photograph

(the vertical dimensions) and those which are not (the horizontal or circular dimensions). The reason for this is of course that a true circle, no matter at what angle it may be turned relative to the eye or camera, *always* presents a maximum or unforeshortened diameter to the observer. For example take a tea cup and saucer

which give diameters of two inches and four inches respectively. In a photograph we may not be able to say what size the objects were, but we can measure direct from the photograph that the diameters are of the ratio 2:1.

First, I took a photographic copy of Adamski's ship and measured the diameter of the outer disc and that of the cabin. They proved to be disc 10.9" and cabin 4.9", giving a ratio of 2.224 : 1. Then I took a much smaller photographic copy of the Coniston sighting and repeated the procedure, the result being disc 2.9", cabin 1.3", showing a ratio of 2.230 : 1, which considering I was measuring photographs, is a rather significant reading. But though I had checked the ratio of diameters, there was still the height to determine and that presented a little difficulty as in this instance there is foreshortening.

The method for checking this will be readily understood by studying the drawings, and it will be noticed that to avoid complicated construction lines, the two photographs have been reproduced to the same scale. It will be noticed that the construction lines in the Coniston photograph may appear to have been drawn from imaginary points on that flying saucer. I would like to assure the reader that this is not so; certain shadows on the photograph, which have been lost in the reproduction of the plate, can be readily identified with features of the Adamski flying saucer. A brief description of the method will be of some guidance, and referring to diagram (*Fig.* 15a).

A-B represent the unforeshortened diameters.

C-E represent the foreshortened diameters.

If we make two marks, distance A-B apart, on the edge of a piece of paper and turn the paper, so that the marks lie one on each of the two lines C-D and E-F, at Al and Bl, this will represent the disc at the photographed angle, but viewed from one side, that is, it will be shown as a straight line. By bisecting this and drawing a right angle G-H, we now have the vertical axis of the ship, on to which the true height H-K can be projected. The angle X can be measured off and that will be the angle which the ship made with the camera when photographed. From this it will be seen that the rest is simply repetition of the above, though it will be necessary to establish the vertical axis and one or two horizontal axes on the photograph first. When the various points are connected up as in the diagrams, we have then a fairly accurate orthographic view of a real space ship. When the drawing was finished several points of interest became apparent, as follows:

As Adamski estimated the diameter of the ship as being thirty to thirty-five feet, I made the base of my detailed orthographic drawing (*Fig.* 15b) equal to thirty-five feet, which gave me a scale enabling me to measure off important parts. Some typical measurements being:

	feet	*inches*
Overall diameter	35	0
of ship	15	1
Overall height of	15	9
ship	8	3
	1	6

Diameter of	4	10
Cabin	29	2
Height of Cabin	23	2
Diameter of Portholes	12	6
Diameter of Spheres		
Diameter of Outer Ring		
Diameter of Inner Ring		
Diameter of Central Cone		

The orthographic drawing shows that the three-ball ‘undercarriage’ projects below the outer rim of the saucer, but the central conical appendage is in fact much lower than

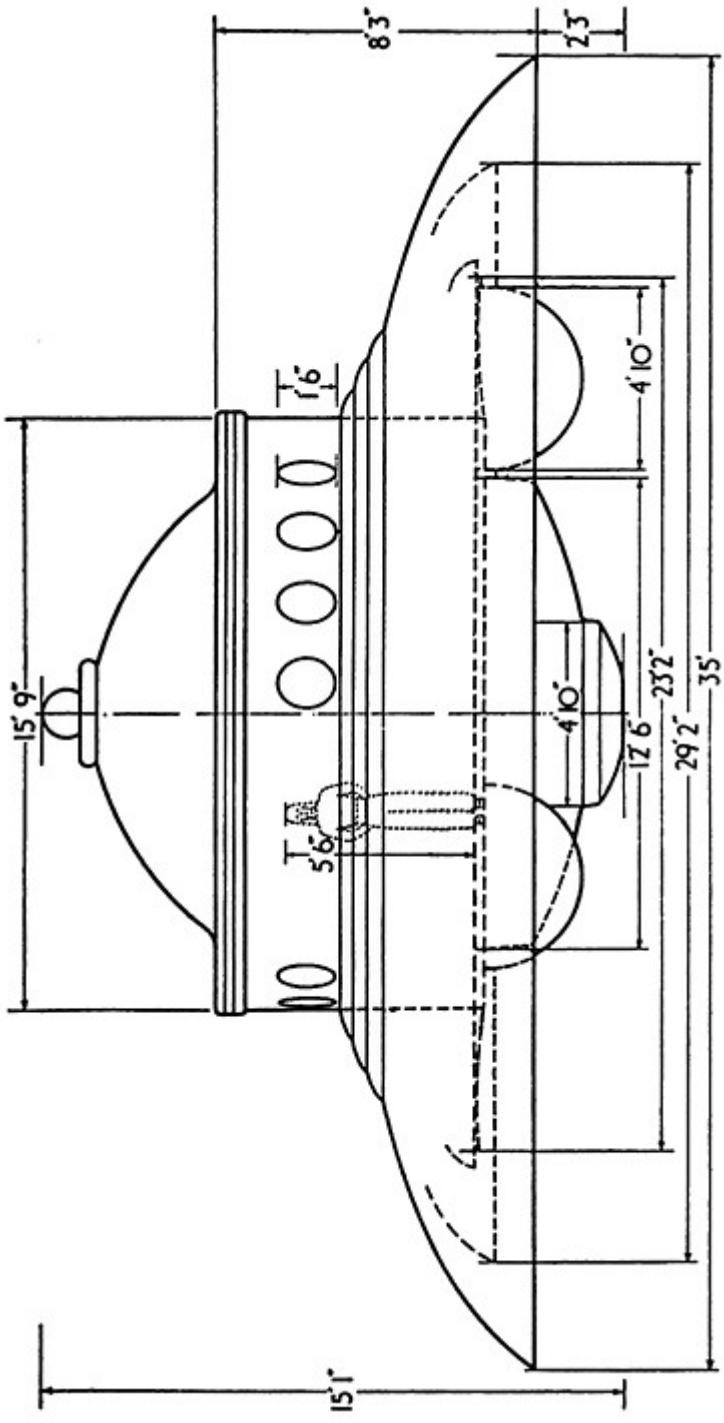

Fig. 15b Major dimensions of flying saucer

Machado

Plate 2 Brazilian Flying Saucer

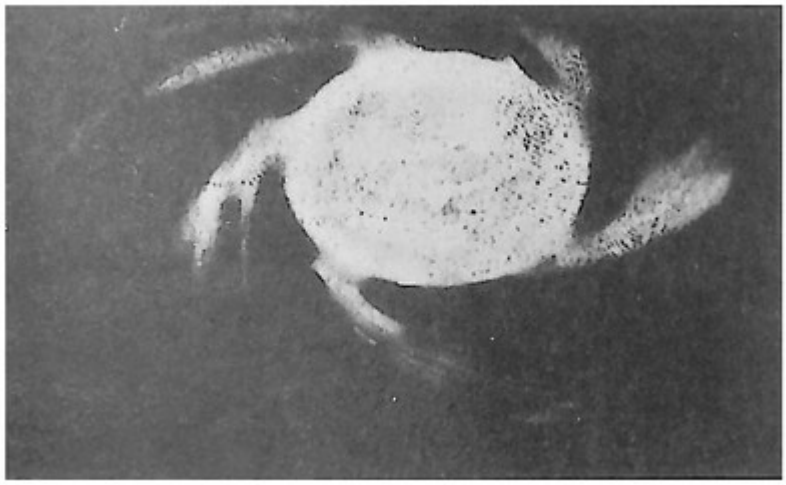

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Plate 3 Saucer showing Catherine Effect

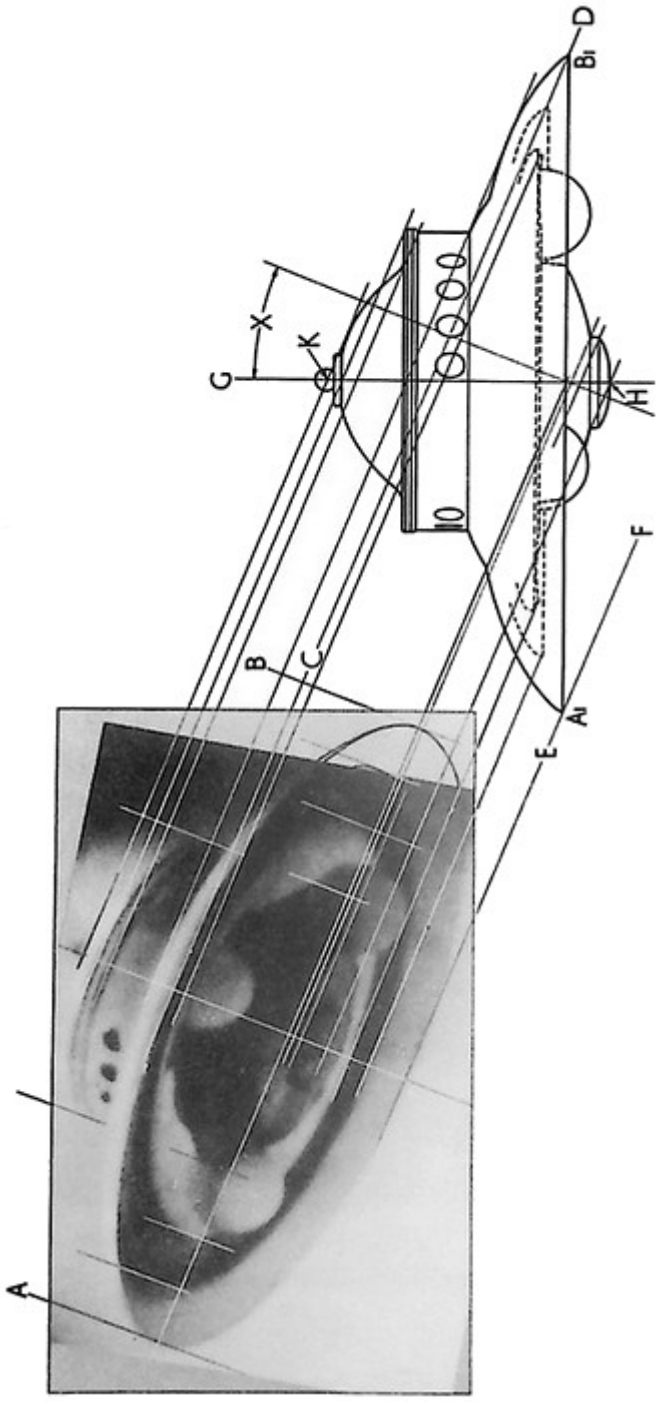
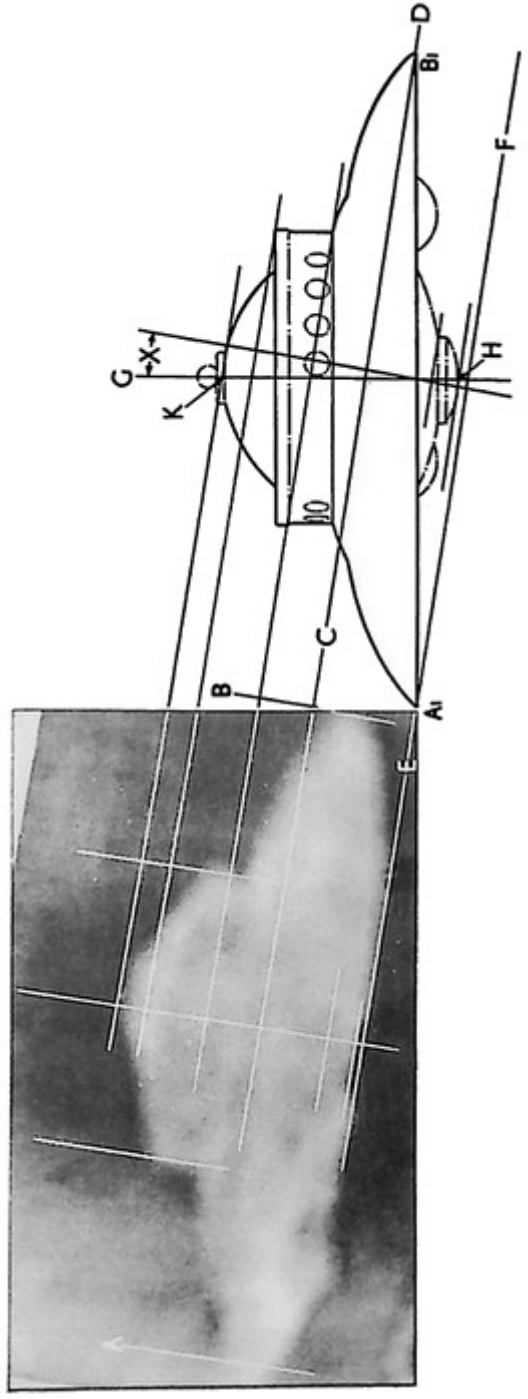


Fig 15a Comparison by orthographic projection of

the Adamski (top) and Coniston (lower) photographs



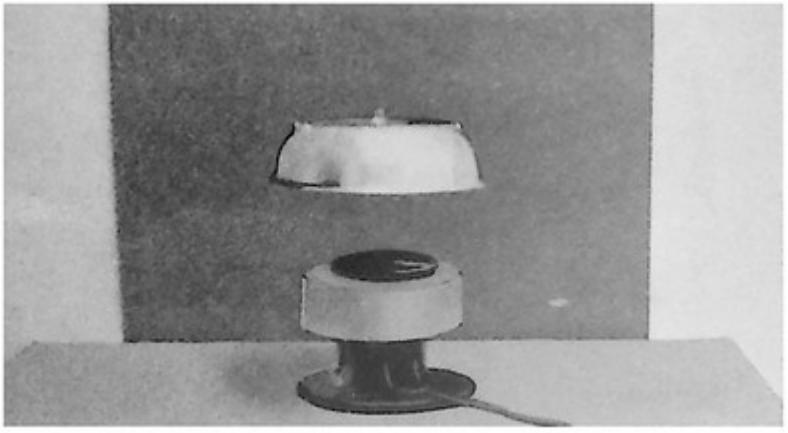


Plate 4 Electromagnetic Repulsion of a Conductor

Permission of Rider and Company

Plate 5 Levitation of a heavy table

any other part of the ship. There may, of course, be a means of retracting the whole central portion into the main disc, but another interesting possibility is indicated. We noticed in the photograph that this central portion is very dark or black in colour. Does this show a similarity to Herr Linke's description? And if so can we assume that the central portion of Adamski's saucer would also cause a depression in the ground if, when the ship after having touched down was about to ascend again, the whole of the outer rim was raised leaving the ship resting on the central 'black pivot'? We cannot be sure, but there is the unquestionable similarity that we must weigh up when judging the Adamski story.

Adamski also said that the Venusian was about five feet six inches tall. Therefore I assumed the top of the porthole to be above eye level; then I estimated the top of the head and measured downwards five foot six inches, and, as will be seen, this brings the inside floor level to just above the disc visible in the photograph. It would therefore seem that if Adamski did photograph a model he must have decided on a scale beforehand and even went as far as estimating the height of the cabin which is visible only from the outside. Did he go to all this trouble because he feared someone was going to prepare orthographic drawings as I have done? Or shall we be more sensible and admit that the exact duplication of the Coniston photograph is alone a virtual proof of authenticity? Will all the sceptics be driven to argue that the two children faked a flying saucer and even went so far as to copy exactly the space ship photographed by George Adamski?

A final point concerning the Adamski and Coniston photographs; I think that it is important for me to add that as near as I can tell from projection and measurement, several points of the scout ship are true parabolas and, lest this seems a point in favour of those who have accused Adamski of using a converted electric light reflector, I should

add that the focal point of the parabolas would be placed some considerable distance from the vehicle.

In the light of these facts there seems to be no room for further doubt. We are forced to admit that in the Coniston sighting and others there is adequate proof that Adamski is telling the truth when he says that he has photographed a space ship from another world.

Apart from what the Venusian told him, does Adamski's experience offer more clues to the power methods of the saucer? Perhaps it does. Adamski tells us in his book that when he approached the saucer:

> My space-man companion warned me not to get too close to it and he himself stopped a good foot away from it. But I must have stepped just a little closer than he, for as I turned to speak to him, my right shoulder came slightly under the outer edge of the flange and instantly my arm was jerked up, and almost at the same instant thrown back against my body. The force was so strong that, although I could still use the arm, I had no feeling in it as I stepped clear of the ship.
>
> My companion was quite distressed about this accident, but he had warned me and I alone was to blame. However, he did assure me that in time it would be alright. Three months later, his words have been

proven true for feeling has returned and only an occasional shooting pain as of a deeply-bruised bone returns to remind me of the incident.

Does this not suggest a phenomenon very much akin to the basic static electrical law of two unlike charged bodies attracting one another then repelling each other when a like charge has been induced? (page 69).

We cannot suggest that this experience was in fact a demonstration of such a phenomenon, but the indications are there, so also is the significant fact that the saucer did not actually touch the earth's surface, but remained suspended

in mid-air. Could it be that the saucer was unsuitable for landing on a rough surface? Had it done so, the rim of the disc may have touched the earth with disastrous results?

Again, when indicating to Adamski the method by which the saucer was propelled, the Venusian picked up some small stones and let them fall to the ground. Does this not suggest movement due to a gravitational field.?

It would follow that there is only one successful way to travel in space, and further, that there is an ultimate and universal design in space craft—the vehicle we commonly call the flying saucer!

This then, if we will it, is our glorious heritage. The more we delve into the mysteries of life with modern science, the more wonders we are likely to unfold. We stand on the brink of understanding the structure of space and matter, and with it the marvels of creation. Research into the subject will go on to its final

conclusion, or until, perhaps, we are privileged to be helped in the work by those shining ones who ride the highways of the universe.

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Verified